

INTRODUCTION
TO
ECONOMICS

BY THE SAME AUTHOR

1. Economic & Commercial Essays.
 2. Higher Accountancy Part II.
 3. Business English.
 4. Business Methods & Machinery, Part I.
 5. " " " II.
 6. Vanijya Arthshastra. (
 7. Vayaparik Padhati aur Yantra Part I.
 8. " " " II.
 9. Book-keeping ka Parichaya.
 10. Practical Book-keeping.
 11. Arthshastra ka Parichaya.
 13. Griha Arthshastra.
 14. Arthshastra Pravesika.
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INTRODUCTION TO ECONOMICS

(INCORPORATING INDIAN ECONOMICS)

by

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KITAB MAHAL ALLAHABAD

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Introductory Survey

Book 1

Chapters 1-7

CHAPTER 1

THE MEANING OF ECONOMICS

Political Economy has to do with the relations of men living in society, so far as these relations tend to satisfy the wants of life and concern the efforts made to provide for all that is generally understood by material welfare.—*Charles Gide.*

Economics is a new subject to you ; and, like every new thing, it probably has its own thrills. You must be quite anxious to know what it is all about and what will have to be studied under it. This can be easily explained and understood.

Let us put a direct question to you : Why have you joined the college ? If you give a reply to this question sincerely, you will probably say that your object is to become a civil servant, a judge, a lawyer or some such thing. If you think over the question more searchingly and deeply, you will say that your object is to *earn money* which may enable you to live a happy and comfortable life. This reply strikes the nail on the right head. It is the *necessity to earn money for the satisfaction of your wants* which compels you to study in the college and acquire education.¹

If you look to other men besides yourself and try to find out the object of their hard work, you will arrive at the same conclusion. Just go to the market one evening and closely watch the activities of the buyers and sellers assembled there. On the extreme right you may find the shop of the bookseller from whom you usually purchase books and stationery. The next shop may be that of the general merchant who supplies you toilet materials, letter-papers and envelopes. You will see other shop-keepers in the line selling various articles, till you reach the end of the row where you might hear 'one price' shopkeeper crying at the top of his voice "*Har ek mal do anna*", occasionally interrupted by the wandering tea-seller recommending his tea in a sweet voice : "*Mithi chae pilo baboji.*" Why all these people come to the market and exert themselves ? There is only one answer : '*For the sake of money.*' Besides the sellers, you will also see numerous buyers in the market with money in their pockets, purchasing the articles wanted by them. Children may be found purchasing toys ; students, books ; clerks, pens and pencils ; and ladies, *sarees* and other articles. Purchasers

¹There are certainly some students who study for the sake of acquiring knowledge and not for the sake of earning money ; but such cases are rare.

come to the market to spend money with a view to acquire the articles required by them.

Everywhere human beings will be found to make efforts and earn money; and then to spend this money to satisfy their wants.² It is the necessity to earn money which can satisfy wants, that prompts human beings to exert themselves in the various occupations. It is this necessity which calls forth human activities in the various walks of life, which makes a shopkeeper keep a shop, a cultivator cultivate a field, a weaver weave cloth, a cook prepare food, a domestic servant serve in a house, a teacher teach students and a lawyer argue cases. Once money is earned, it is spent on the objects of one's desire, and the wants are thus satisfied. All the human activities of the above nature, i. e., the activities concerning the earning and spending of wealth, are studied under Economics. Briefly, Economics studies human activities related to wealth.

§ 1. DEFINITION OF ECONOMICS

If you ask an economist to explain to you the meaning of Economics, he will probably proceed as follows.

Men have wants. Some wants are elemental and very pressing like the want for food and water; others are less urgent, e. g., the want for a car or a beautiful bungalow. All these wants, of different kinds as they are, have to be satisfied. Faced by this problem, men are driven to work in factories and fields, schools and offices and elsewhere; so that they may earn money by which they may purchase the articles from morn till evening; cultivators why labourers work in factories and shops; servants render services; cultivate fields; shop-keepers open shops; servants render services; clerks work in offices; authors write books, and doctors treat patients. All human activities related to wealth (and meant to satisfy human wants directly or indirectly) constitute the subject-matter of Economics. That is why they are known as 'economic activities.' Non-economic activities of human beings lie beyond the province of Economics. For example, Jawaharlal Nehru, Maulana Azad and other leaders serve the country as a patriotic duty; students play cricket and tennis for pleasure; mothers look after their children out of affection. Such activities are non-economic as they are not undertaken for the sake of wealth; they are not studied under Economics.

Economics, it should be remembered, is concerned with the activities of human beings only; and not those of other creatures. But it does not study the activities of each and every human being. The human beings whose activities are studied under it must possess the following three qualifications:

²Sadhus, insane persons, and other similar individuals may be exceptions to this general rule; but as Economics studies average human beings, they are beyond the scope of our subject. See pages 3-4, *post.*

(1) *They must be members of society.* A man is by nature a social animal; he naturally seeks the society of his fellowmen, in the first place for the pleasure which society affords, and, in the second place, in order to have their assistance in satisfying his wants. The actions of an individual, as such, affect other members of the society, as the actions of other members affect him. Just as a limb of a man is related to his other limbs and to the body as a whole similarly a man is related to his fellow citizens and to the whole of the society. Economics studies the activities of men living in society and considered as units thereof. It does not study man as an individual but as a member of the social organisation. Evidently the persons who are more or less cut off from society, like lonely Robinson Crusoe thrown upon a lonely island or *sadhus* and *sanyasis* who have lost touch with society, are not studied in Economics. Such persons have their own methods of making efforts and satisfying their wants which are quite different from those adopted by ordinary human beings living in society. They are not studied in Economics; for as they are exceptions to the general type of men and women we daily come into contact with, the study of their activities cannot be of much practical value. That is why Economics is called a social study.³

(2) *They must be real human beings and not fictitious or imaginary human beings*, with supposed characteristics. Older economists assumed that a man was always moved with the only object of getting as rich as possible; and religion, ethics, politics, etc., had no effect on him. Such a man was called by them 'Economic Man.' But this assumption is quite wrong; a real man is certainly moved by various other considerations. Consequently all the study based on the assumption of 'Economic Man' has been found to be misleading and has been discarded. Modern Economics studies the man as he is.

(3) *Finally, they must be human beings of normal or average type.* There are some persons, like mad men and women, who are real persons and are members of society, but are not normal persons. A study of their activities cannot be very useful; it may, indeed, be very misleading. Hence such persons are definitely excluded from the scope of Economics. It should, therefore, be remembered that Economics studies the activities of only those human beings who are social, real and normal.

Another point which has to be emphasised is that all the activities of human beings are not studied by Economics. *It studies only*

³This is the classical view and is invariably met with in majority of Indian text-books on Economics. Recently Prof. Lionel Robbins of London School of Economics, one of the greatest living economists, has refuted the idea that Economics is purely a social science. He maintains that Economics studies both a man living in society and one cut off from it. See Robbins, *The Nature and Significance of Economic Science*. But this view is open to question. See my *Reconstruction of Economic Science* (Allahabad, 1945).

*those activities which are related to wealth.*⁴ It is only these activities which lead to the direct or indirect satisfaction of wants and they alone are included in Economics.

The third point which should be borne in mind is that *Economics is a science as well as an art*. It shows the relationship between cause and effect involved in various economic phenomena, which is the true function of a science. It also prescribes certain rules of guidance for the maximization of material prosperity, which is the true function of an art. Older economists used to regard, and most of the British economists still regard, Economics only as a science. But a vast majority of modern economists firmly believe and maintain that Economics is both a science as well as an art.

The above three points must be clearly mentioned and specified in a correct definition of Economics. We may then define Economics as *the art and science studying those activities of social, real and normal human beings, which are related to wealth.*⁵ The reader will find Economics defined in different words and ways by different economists⁶; and he must carefully find out if all the above facts are included in each definition or not.

§ 2. MAN AND WEALTH

In the definition of Economics given above, the word *human* and *wealth* are important; for they indicate that Economics studies both man and wealth. But which of the two is more important?

⁴Economics is sometimes defined as 'a science which studies wealth-earning and wealth-spending activities of human beings.' But activities relating to the exchange and distribution of wealth also fall within Economics. Hence this definition is narrow and should be avoided by students.

⁵This definition can be elaborated further. For this purpose two things need be emphasised: (i) Science may be divided into Positive Science and Normative Science according as it studies the present or describes the ideal. Economics is a positive as well as a normative science. Again, Economics is also an art. Art suggests methods of realisation of the ideal, which Economics also does; (ii) Economic activities fall under four categories: Consumption of Wealth, Production of Wealth, Exchange of Wealth and Distribution of Wealth. (See Chapter 2, *post*). We can, then define Economics as *a social, positive and normative science and art, which studies those activities of social, real and normal beings which are related to the consumption, production, exchange and distribution of wealth.*

⁶*Definition by Important Economists*—(1) Political Economy or Economics is the study of man's action in ordinary business of life; it enquires how he gets his income and how he uses it. Thus it is on the one side a study of wealth and on the other, and more important, side a part of the study of man.—Marshall, *Economics of Industry*, p. 1.

Older economists laid emphasis on wealth. They defined Economics as a study of *wealth*; the human aspect of their study was hardly given any importance. For instance, J. B. Say called Economics 'the science which treats of wealth' and Walker defined it as 'that body of knowledge which relates to wealth.'

Such definition had the disadvantage of turning attention away from the real subject of Economics, which is man and his wants, and concentrating it on wealth which is merely the means of the satisfaction of human wants. It began to be thought that Economics is meant for selfish persons who want to enrich themselves at the cost of helpless members of society, without any regard to ethical considerations. Economics came to be regarded as a self-seeking and purely materialistic branch of knowledge. It naturally aroused opposition in the minds of thinkers and writers of those days. Men of the authority of Carlyle, Ruskin and William Morris described it as a 'Dismal Science' and 'Gospel of Mammon' who is the God of riches. Later economists consequently corrected the mistake of their predecessors and tried to put more emphasis on man and less on wealth.

Modern economists are all agreed that wealth is not an end in itself. It is not produced for its own sake. It is meant to satisfy human wants, and has significance only in so far as it satisfies human wants. If it ceases to do this, nobody will care for it. Wealth is produced for man, not man for wealth. We must give primary importance to man; wealth is only of secondary importance to us. Our object is to promote human welfare; and in Economics we try to find out how far this welfare can be promoted by means of wealth.

We do not study Economics for devising the ways and means of producing more wealth and still more wealth; but how to regulate production, consumption, exchange and distribution of wealth so as to contribute to the maximisation of the welfare of society.⁷ Hence Economics is now considered to be a study of the activities of *human beings* in so far as they are related to *wealth*. Marshall, one of the greatest economists, has remarked that Economics is on one side a study of wealth and on the other, and more important, side a part

(5) Economics is the science that studies human behaviour as a relationship between ends and scarce means which have alternative uses. Robbins, *The Nature and Significance of Economic Science*, p. 1. (This definition is now most widely adopted. The definition of Economics as a science of human activities relating to wealth, has been given up in its favour by many economists. But this is neither necessary nor justified. See my *Reconstruction of Economic Science*. (Allahabad, 1945).

7The misery and squalor that surround us, the injurious luxury of some wealthy families, the terrible uncertainty overshadowing many families of the poor—these are evils too plain to be ignored. By the knowledge that our science seeks, it is possible that they may be restrained. Out of the darkness to light! To search for this light is the task, to find it perhaps the prize, which the 'dismal science' of Political Economy offers to those who face its discipline.—A. C. Pigou, *Economics of Welfare*, Preface.

of the study of man.⁸ It is, therefore, wrong to say that Economics is a purely materialistic or dismal science.

It should be remembered that in everyday language, the term "wealth" is used to denote rupees, annas and pias. That was the reason for the misconception that economics merely teaches a man how to become rich. But the term "wealth" is used in economics in a wider sense than this. All the natural resources (e.g. mines, land, etc.) as well as human resources (i.e. man and his powers) are included in wealth, as will be clear by reading Chapter 9. Economics studies those human activities which are related to the use of entire natural and human resources for the welfare of human race.

Wealth and Welfare

The ultimate aim of all human activities is welfare or prosperity. Wealth has the capacity of increasing this welfare. The welfare that is produced by wealth is called *material welfare* or *economic welfare* or *material prosperity*. We study human activities relating to wealth because it enables us to increase our material welfare, and not because wealth in itself is something good. The emphasis is on economic welfare, not on wealth. That is why Economics is sometimes defined as a science which deals with the problems of material welfare or a science which discusses how to utilise resources with a view to promote social welfare.

§ 3. ECONOMY, ECONOMICS, AND POLITICAL ECONOMY

'Economics' and 'Economy'

The word 'Economics' is sometimes confused with the word 'Economy.' The two words come from the same Greek word and appear to be very similar; this is the reason why a lay man thinks that Economics and Economy are more or less alike in their meaning. Economy literally means saving or frugality; not wasting money, food or any other substance; and it is concluded that Economics teaches us to be economical. But in fact Economics teaches us nothing of the sort.⁹

Economics merely studies human activities in relation to wealth. It may at times explain how much money should be spent, in what manner should it be spent, and so forth. But whether it would advise little or more expenditure, would depend upon the particular economic situation existing in the country. During the time of depression, for instance, when prices are low

⁸ Marshall, *Economics of Industry*, p. 1.

⁹ Merriam writes: 'Economics has nothing whatever to do with being economical; we may praise a man for avoiding waste, that is, for being economical, but the science of Economics has nothing to do with praise or blame.' *An Introduction to Economics*, p. 9.

and unemployment is great, Economics teaches us to spend money freely and on a large scale. It would be, therefore, wrong to think that Economics necessarily teaches us to be economical.

The term 'Economy' is, however, used in Economics in a different and in a very special sense : it is used to mean the 'economic system of a country'. For instance, Indian Economy means economic system of this country.

'Economics' and 'Political Economy'

Our branch of study bears two names—'Economics' and 'Political Economy'. 'Political Economy' was an old name and has now been given up in favour of 'Economics'. 'Political Economy' is a defective name because each of these words, 'Political' and 'Economy', has a special significance quite different from what Economics really studies. 'Political' means *dealing with the State* ; while 'Economy' means *household management* or management of one's wealth. Political Economy, therefore, means *management of wealth or resources of the State*. Now, modern Economics does not confine itself to a study of the management of the State finances; and, therefore, Political Economy is a misleading term to use to describe our subject. This is the reason why its use has been altogether given up; and it is only in the books written by older economists that you come across this term.

TEST QUESTIONS

1. What do you study under Economics? Frame a suitable definition of Economics.
2. Economics studies both man and wealth. Which of them is more important?
- 2a. "Economics is a material and dismal science". Defend or criticize this statement?
3. Is Economics an art? What is the opinion of classical and modern economists on the subject? What is your opinion, if any?
4. Does Economics teach to be economical? What is the exact sense of the term 'Economy'?
5. 'Political Economy or Economics should teach us the virtues of economy or frugality'. Criticize this statement.
6. If men were never in danger of hunger or other pressing wants, would they work, or steal, or go to war? Are work, and crime, and war economic phenomena?
7. What do you consider the most important questions of the day? Which of these are essentially economic questions? How many directly or indirectly involve economic matters?

EXAMINATION QUESTIONS

U. P. Inter. Arts

1. Define Economics. Discuss its relation to other Social Sciences (1951).
2. What is the subject-matter of Economics? How is Economics related to other Social Sciences? Explain fully (1948).

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3. 'Economics is a Social Science dealing with the problems of material welfare and prosperity of mankind.' Explain and point out the relationship of economics to geography and politics. (1943)

4. Define Economics and discuss how it differs from other social sciences. (1941)

5. What is Economics? How far is the study of Economics helpful in practical life? (1940, 1932)

U. P. Inter Com.

6. What is Economics and what does it study? (1950)

7. What is the subject-matter of Economics? Discuss the value of its knowledge to a businessman. (1943)

Rajputana Inter. Arts

8. 'Economics is a science of wealth'. Is this definition correct? Give reasons and also give the correct definition. (1943, 1949)

9. What is Economics? Discuss its relation to other sciences. (1948)

10. Define Economics carefully. Discuss its subject-matter. (1948)

Rajputana Inter. Com.

10. "Economics is the science of wealth." Why is this definition of Economics regarded as defective? Give what you consider to be the proper definition and explain the subject-matter of the science. (1944)

Patna Int. Com.

11. Define Economics and indicate its scope. (1948A)

Banaras Inter Arts

12. Define Economics carefully. Discuss its subject-matter. (1949)

13. "Economics is the science of wealth" Discuss. (1945)

Banaras Inter Com.

14. What is the subject-matter of Economics? How is its study useful? (1949)

15. Define Economics. Examine its relation with other sciences. (1917)

16. 'Economics is the science of wealth'. Critically examine this statement. (1946)

Sagar Inter. Arts

17. What is Economics? How far is Economics useful in relation to practical problems? (1950)

Sagar Inter. Com.

18. Define Economics and state whether it is Science or Art. (1950)

Nagpur Inter. Arts & Com.

19. What is Economics? (1946)

Bombay Inter. Com.

20. "Economics is concerned not with causes of material welfare, but with the distribution of scarce means between alternate ends". Discuss. (1946)

Poona Inter. Arts

21. Explain in the light of the definition of Economics by Prof. Robbins how Economics is concerned with the problem of economizing. (1919)

Other Examination Questions

1. What is the subject-matter of Economics ? Indicate its object and scope. What does the economist study ? (Punjab, 1936, 1933, 1930)
2. 'Economics is the science of wealth in relation to man.' Explain this statement. (Delhi, 1939)
3. 'Economics is the study of man in the ordinary business of life.' Explain. (Calcutta, 1933)
4. 'Economics is the science of wealth.' Do you agree with this definition ? Give your reasons in full. (Calcutta, 1929)
5. Examine the following statement :—
The main question of Economics is : 'Why all of us, taken together, are as well off—or, as ill off, if that way of putting it be preferred—as we are, and why some of us are much better off and others much worse off than the average.' (Bombay, I. A., 1936)
6. Discuss any two of the following statements :—
 - (a) 'Economics is the study of man in the ordinary business of life.'
 - (b) 'Economic man is the caricature of man as he is.'
 - (c) 'There is no antithesis between Economics and Ethics.' (Bombay, I Com., 1940)

CHAPTER 2

ECONOMICS AS A SCIENCE AND AN ART

The English writers who have succeeded Adam Smith have generally set out by defining Political Economy as a science and proceeded to treat it as an art... The modern economist of France, Germany, Spain, Italy and America...all treat Political Economy as an art.—*Senior*.

While defining Economics in the last chapter, we provisionally mentioned that Economics is a science as well as an art. But this statement needs further discussion. Before we can answer the question whether Economics is a science, or an art, or both, we should have a clear idea of the meaning of these terms.

§1. POSITIVE SCIENCE, NORMATIVE SCIENCE AND ART

Science and Art

A body of systematised knowledge may be a Science or an Art. Science is again divisible into Positive Science and Normative Science. This classification is illustrated in the chart below ¹:

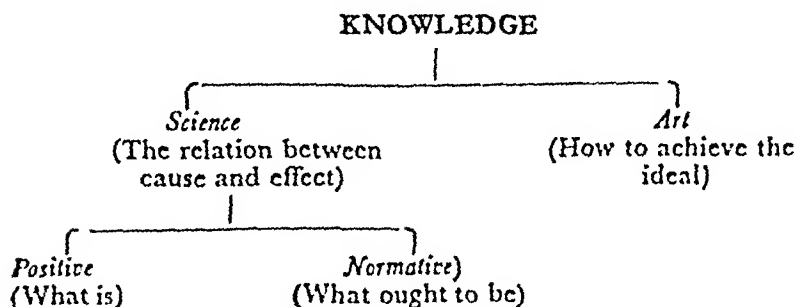


Chart 1. Explaining the classification of knowledge.

(1) A *Positive Science* studies the present conditions or 'What is'. It deals with the relation between cause and effect within its own field. It does not start with the notion that something is desirable or undesirable; nor does it arrive at any such conclusion as its result. It does not offer precepts and prescriptions. Its only

concern is to trace effects back to their causes, to project causes forward to their effects.

(2) An *Art*, on the other oand, starts with the assumption that a certain thing is desirable or that a certain thing is undesirable. The object it seeks to ascertain is how the good may be attained, or the evil avoided. As a result, it issues certain precepts and prescriptions, which may lead to the achievement of the good and the avoidance of the evil.²

(3) A *Normative Science* lays down the ideals which are to be striven for and achieved. It discusses what are desirable things and should be realised and practised; and what are undesirable things and should be avoided. In other words, it deals with *What ought to be*. It is these ideals which Art takes for granted and lays down the methods of the achievement thereof.

The difference between these three branches of knowledge is that a Positive Science simply explores and explains relevant phenomena by showing the relation between cause and effect; it studies '*What is*' or the present conditions. The Normative Science studies '*What ought to be*' or the ideals which should be realised. The Art lays down the methods by which the ideals can be realized; or '*What is*' can be brought near to '*What ought to be*'. The Art is thus the bridge which covers the gulf between the present and the ideal as is shown in the following diagram.

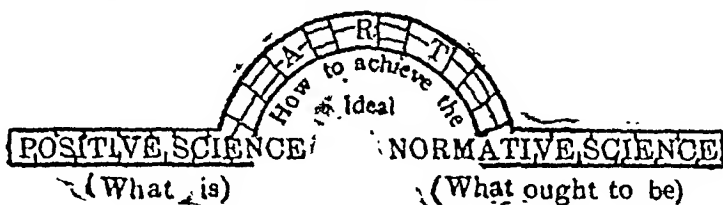


Fig. 2. Explaining the relation between Positive Science, Normative Science and Art

Illustration

An illustration will make this difference clear. Suppose a man asks a physiologist (who is a positive scientist) whether he should take poison or not. The scientist will probably reply, 'As a scientist I can only say that if you take it, you will feel such and such sensation and then you will be dead. It is not my function to give you advice.' Our friend may next go to a normative scientist and ask him the same question. The normative scientist will reply him, 'Well, your ideal should be to lead a long life. It is bad to cut short a life by taking poison. This is all that I can say. If you want specific advice, you should go to an artist'. If he approaches an artist, say, a medical doctor, he will advise the inquirer not to take poison since it will upset his constitution and might cause death.

²Walker, *Political Economy*, pp. 19-20.

The positive scientist, thus, explains the effect of taking poison ; the normative scientist lays down whether it is good or bad to take poison ; and the artist directs to take poison or not to take it.

§ 2. IS ECONOMICS A SCIENCE, OR AN ART, OR BOTH?

We are now in a position to answer the question : Is Economics a science, or an art, or both ? And if it is a science, is it Positive Science, or Normative Science, or both ?

Economics as a Positive Science

Economics is a positive science. It surveys the entire field of study acutely and establishes the relationship between cause and effect in all its branches. It states such relationships as they exist in the fields of consumption, production, exchange and distribution of wealth. In the field of consumption, it tells us that *if* the quantity of a commodity possessed by a man increases, the utility of each of its successive units diminishes. In the field of production, it informs us that *if* additional labour and capital are applied to a plot of land after a certain point, less than proportionate returns are obtained. In the field of exchange, it states that *if* the price of an article goes up, the demand for it goes down. In the sphere of distribution it suggests that *if* labourers decrease in number or increase their efficiency, wages will increase. In this way Economics all along shows that *if* certain things happen, certain results follow. The statements of the relation between cause and effect are known as *Laws* in Economics. Economics has established a large number of useful laws showing relationship between cause and effect. Economics, as such, is a positive science.

Economics as a Normative Science

Economics is also a normative science. As a normative science, it is concerned with the formulation of the ideals suggested by economic considerations and aims at the maximisation of economic welfare of society. Normative science of Economics is as yet in its infancy. Economists disagree on the point as to whether Economics can be regarded as a normative science or not. But it is now growingly realised that Normative Economics can and should exist ; and it does exist at present though in a rudimentary and elementary form.

Economics as an Art

Economics may also be regarded as an art. From this viewpoint, Economics may be defined as the subject which suggests the ways and means for the maximisation of production and accumulation of wealth ; and, through it, of economic welfare of society.

Economists, however, are divided on the issue whether Economics is an art or not. Conservative British economists strongly maintain that Economics is simply a positive science and not an art. According to them Economics should simply formulate the

relation between cause and effect ; it should not propound the rules of guidance. But economists of other countries of the world do not appreciate this view. The findings of the Science of Economics, they say, should be turned to good account ; and the methods for achieving maximum economic welfare should be formulated. The Science of Economics, thus, leads to the Art of Economics. Economics is both a science as well as an art. Most of the economists of the world hold this opinion ; and Economics has now begun to suggest practical ways and means for increasing the material prosperity of humanity.

TEST QUESTIONS

1. What are the branches of knowledge ? Define the positive and normative science and art. Is Economics a science or an art ?
2. 'Economics cannot be considered to be an art, much less a normative science.' Criticise or defend this statement.

EXAMINATION QUESTIONS

U. P. Inter. Arts

1. Discuss fully the subject-matter of Economics as a Social Science (1946)
Sagar Int. Com.
2. Define Economics and state whether it is Science or Art. (1950)

CHAPTER 3

SCOPE OF ECONOMICS

It is the definite and exact money measurement of the steadiest motives in business life, which has enabled Economics far to outrun every other branch of the study of man—*Marshall*.

Having discussed the definition and nature of Economics we now turn to the problem of the scope of Economics. The student is generally found confused when he is asked to discuss the scope of Economics. To a very great extent this confusion is due to the fact that he does not know what is meant by 'Scope' or what exactly he is required to discuss.

By scope of Economics is meant the field exactly covered by the subject of Economics. To describe the scope, we must discuss :

- (1) What is the nature of Economics ?
- (2) What is the subject-matter of Economics ?
- (3) What are the limitations of Economics ?

§ 1. SUBJECT-MATTER OF ECONOMICS

Those activities of social, real and normal human beings, which relate to wealth, constitute the subject-matter of Economics. We agreed to, and explained, this statement in Chapter 1 and need not repeat the whole discussion here.² But we may further analyse and explain these activities below.

Economic activities originate from the feeling of certain wants by human beings, which press for satisfaction. Human wants are satisfied through the consumption of the articles or objects of desire. Consumption of wealth, then, constitutes the first group of economic activities. But, where does this wealth come from ? It is, of course, produced by men and women. In the early days of civilisation each man or family produced all the things which he or it wanted for his or its consumption, and satisfied the wants directly. Later on it was discovered that, as a general rule, a man has special proficiency in one particular work only ; and so if he devotes himself exclusively to that work, he could produce more wealth than what he could

by devoting himself to the preparation of all the articles of his wants. One began to specialise in one occupation ; specialisation of occupations or division of labour was introduced. Each man, then, began to give his surplus produce to others in exchange for the articles which he required and which others produced. *Exchange* of wealth thus made its appearance. Meanwhile another important fact dawned upon human beings. They found that they can increase production considerably if they work collectively or in a group rather than individually. This realisation discouraged the system of individual producers, and brought the system of joint or collective producers, as happens in modern factories, into prominence. Then the questions arose : To whom does the wealth produced by their joint efforts belong? To all of them, naturally. If so, in what proportion should it be distributed among them? The problem of *distribution* of wealth thus emerged. After distribution takes place and each man gets his share, he spends his income on the objects of his desire. Wealth thus secured is consumed by him and his wants are satisfied. The circle of economic activities now becomes complete. *Economic activities, as such, divide themselves into four groups, viz., Consumption, Production, Exchange and Distribution. They together constitute the subject-matter of Economics.*

§ 2. NATURE OF ECONOMICS

Let us now proceed to answer the second part of our enquiry, viz., What is the nature of Economics? In other words, is it a science, or an art, or both?

This has already been discussed in Chapter 2 *ante*, and the reader is referred to it for a proper answer to this query.

§ 3. LIMITS OF ECONOMICS

The limits of the subject of Economics have been carefully drawn up by its masters. They may be briefly enumerated here :

(1) Economics is not a complete study of all the human activities. It studies only those activities of human beings which are related to wealth.

(2) The measuring rod of Economics is money. Hence it concerns with those desires, aspirations and other affections of human nature, which can be approximately measured in terms of money. If I am prepared to paint a picture for a sum of Rs. 20, my desire to draw it can be measured with this sum; and this activity of mine falls within the scope of Economics. But if I paint a picture for the sake of pleasure, the question of money does not come in and then my activity will not fall within the scope of Economics.

(3) Economics studies the activities of those human beings alone who are members of society.

2. Production

The necessity or desire to satisfy wants leads to the production of wealth, which constitutes another branch of Economics. Under Production, we study the various factors of production, their characteristic features and their efficiency, the laws governing production; how maximum wealth can be produced with the productive resources at our command; and the problems of organisation, combination and trusts.³

3. Exchange

The third division of Economics is Exchange. In the primitive stage of self-sufficiency, men consumed what they produced. Every family was independent of the outside world in producing and consuming wealth. There was, as such, no necessity of exchange. But as human ingenuity made progress, it was realised that a man cannot be equally skilful in all trades; he generally possesses special aptitude for one occupation or for a few occupations only for which he is best fitted. Now, if each man produces only that thing which he can do most skilfully all the time, he will naturally produce the said commodity far in excess of his personal requirements. Similar will be the case with the producers of other commodities as well. All of them may, then, the case were *exchange their surplus products* with the required articles produced by others. This arrangement, namely, the introduction of division of labour coupled with exchange, was believed to make people richer and better off than before. The scheme was actually put into practice, and it was found that it really increased the output and made people rich. This idea, once caught, has been adhered to steadfastly; and today we possess a very complicated system of exchange. Australian wheat is consumed by Britons; American machinery is used in Indian factories; and Japanese toys are seen in the hands of Indian children. The area and machinery of exchange have been vastly improved in recent times.

Under Exchange, we explain how is it that a book costs, say, just Rs. 3—neither more nor less; how price is determined; what are the agencies making exchange possible. We also make a detailed study of money, banks, markets, transport agencies and other auxiliaries of commerce.

4. Distribution

The introduction of division of labour was associated with the introduction of co-operative production. Originally each man

³It is sometimes discussed whether the study of Economics should begin with Production or Consumption. Some economists begin a treatise on Economics with Production because, they say, production is the foundation of Economics. Unless wealth is produced, consumption cannot take place. Production, therefore, should come before Consumption. Other economists give the first place to Consumption because it is the existence of wants pressing for satisfaction which leads to the production of wealth. There is an increasing practice among economists to treat Consumption prior to Production; and has been followed in this book.

produced wealth all alone, so that whatever he produced was his property. But it was found later that if several people work together jointly, the wealth produced by all of them together will exceed the total of what they could produce individually. This new development gave rise to one great difficulty, the difficulty of distributing the joint wealth among the producers. When the various agents of production produce wealth jointly, the wealth produced is the property of all of them ; on what principles, then, should it be *distributed* among them ? Distribution, as a department of Economics, thus came into being. Under Distribution we study the various agents of production, how is the share of each of them in the joint produce determined, is our system of distribution just, and similar other problems.

Distribution is the most pressing and difficult problem of Economics, and has good scope for original work. The movement known as Socialism⁴ is, at its bottom, mainly a result of the bad system of distribution. In the modern industrial society, the productive capacity has increased tremendously. On all sides we see gigantic factories, mills and farms. Now, such an increase in the scale of production of wealth should be ordinarily associated with the richness of all the members of the society. This, however, has not been the case. On the one side we see the rich, the capitalists who are getting richer daily, and who spend their lives in luxuries of all sorts and description. On the other side are to be seen the poor, labourers, and cultivators, who have to live on insufficient food, clothing and shelter. And while the masses do not get even the chance of satisfying their elementary wants, thousands of tons of coffee are burnt in railway engines in Brazil and hundreds of tons of cotton destroyed by U. S. A. each year ! What is the reason of this great paradox ? A very important reason is that problem of distribution of wealth has not been properly solved by modern communities. Capitalists do not give to labourers and cultivators their fair share of joint product. Thus a large part of wealth produced goes to a handful of men, while the large majority gets only a small part of it. The correction of this evil system of distribution is an important aim of Socialism. This line of thought has made the subject of Distribution the most important branch of Economics.

5. Public Economics

Besides studying these four branches of Economics, we shall also study economic problems faced by the modern Government. The

⁴Socialism is one of the most important international movements of today. Literature on Socialism is increasing rapidly. The variance in opinions on this subject is also tremendous. A case for Socialism has been made out by Spargo and Arner in *Elements of Socialism*; and against it, by Hernshaw in *A Survey of Socialism*. For an impartial study, see my *Socialism without Prejudice*.

branch of Economics devoted to the purpose is known as Public Economics.⁵ It discusses such problems as follows: Should the Government intervene in ordinary economic life? Should land be nationalised? Should Government run the railways? Should they force prohibition? The most important subject of Public Economics is known as Public Finance which we shall discuss later on in detail.

§ 2. INTER-RELATION BETWEEN THE DIVISIONS OF ECONOMICS

From the above account of the divisions of Economics it should not be concluded that these departments are completely cut off from each other and that there is no relation between them. This division is purely a matter of convenience in study and analysis; as it is, these divisions are the limbs of the same body and have close intimacy with each other.

Consumption is the beginning of Economics. The imperative need for the satisfaction of human wants leads to economic activities. These activities lead to the *production* of wealth which might be consumed for the purpose of satisfying wants. But productive efforts have, in modern times, become *specialised* and *co-operative*. By specialisation is meant that a person is now usually a specialist in the production of one thing alone. He produces only that thing which he can do most skilfully and exchanges it with the articles of his requirements, which are produced by others. Specialisation, thus leads to *exchange*. By co-operative character of production, we mean that individuals no longer work alone; they work in groups instead. The wealth produced by a group of persons naturally belongs to all the members of the group and thus gives rise to *distribution*. When the wealth is distributed and each producer receives his share of income, he purchases the article of his necessity with this money and *consumes* them for the satisfaction of his wants. The circle of economic activities thus becomes complete.

Consumption leads to production, and production, through exchange and distribution, leads back to consumption. *Public Economics*, the fifth division of Economics, comes in to watch and see that private individuals carry on economic activities to their own best advantage and to the best advantage of the society to which they belong.

Consumption may, as such, be described as the top of the tree of economic activities. The root of this tree is production; and

⁵Some writers mention *Public Finance* as the fifth division of Economics. But this is wrong since *Public Finance* is a part of *Public Economics* which, in fact, is the fifth branch of Economics.

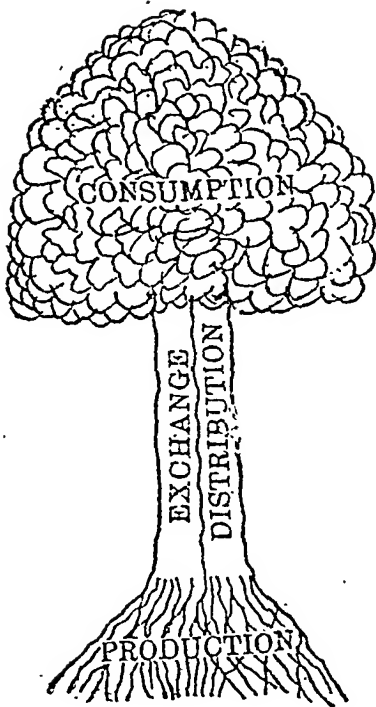


Fig. 3 Showing the economic tree.

exchange and distribution are the stems which support the top. The analogy may be completed by comparing Public Economics with a gardener, who exercises supervisory powers and sees that the economic tree grows to the full and natural height, who protects and waters it, or cuts and prunes it according to the requirements of the moments.

We shall now describe the relation of each department of Economics with all the other departments.

1. Consumption and Production

The relation between consumption and production is quite intimate. *Consumption makes production possible.* Goods are produced only because they are consumed; if certain goods are not likely to be demanded for consumption, they will not be produced. Nobody will think of producing books in the land of the illiterate and liquors and intoxicants in the land of complete abstainers. Again, it is the consumption which makes people fit to carry on production. Just as consumption makes production possible, similarly *production makes consumption possible.* Goods can be consumed only if they are produced; and if they are not produced, they cannot be consumed.

Consumption also determines the nature of production. Producers produce only those things which are demanded for consumption. During the war time the demand for arms and ammunitions increases enormously, and these things are produced even to the neglect of other goods. In peace time the demand for the destructive goods is small and their production is correspondingly low. It is interesting to note how the nature of production changes with a change in fashions and tastes. There was a time when felt caps were largely in demand and were, therefore, produced in bulk. But now they have been replaced by Gandhi caps; and production has consequently shifted from felt caps to Gandhi caps. Just as consumption determines the nature of production, similarly *production moulds the character of consumption.* People can consume only those goods which are produced; and by discouraging or encouraging production of certain goods, their consumption can be reduced or in-

creased.

creased. Under the Congress regime, for instance, the production and use of liquor has been prohibited in certain areas and the drinking of tea and milk popularised. The discontinuance of the production of liquor and the encouragement of the production of milk and other beverages has been having its effect on the nature of consumption.

Consumption also limits the extent of production. Producers try to anticipate consumer's demand for certain goods and produce it only to the extent of the likely demand. If they exceed this limit, their goods may not sell, and they may suffer a loss. *Production, similarly, sets a limits to consumption.* People, of course, cannot consume more than what has actually been produced

2. Consumption and Exchange

Consumption in the modern society depends upon exchange. In primitive society, the relation between wants, efforts and satisfaction was direct. As soon as a want was felt by somebody, he made an economic effort, and the want was satisfied. If a man felt hungry, he plucked wild fruits and appeased his hunger. Under this system, exchange was not necessary; wants were satisfied without exchange ever coming into the picture. But that state has long passed away. Nowadays consumption is not possible with exchange. Man has now become a specialist and whatever he produces has to be exchanged for the objects of his consumption. Not only this; economic efforts are now made into groups. Each group obtains an income by the exchange of goods jointly produced; this income is then distributed among the members of the group. The latter, again, exchange the individual incomes for the objects of their consumption. Exchange has thus become inevitable for making consumption possible. *Consumption is similarly essential for the existence of exchange.* Unless a thing is an object of consumption (directly or indirectly), it cannot be an object of commerce as nobody will ever purchase or sell it.

Under exchange we discuss value-in-exchange; under consumption, value-in-use. And value-in-exchange depends, to a considerable extent, upon value-in-use. This tie binds consumption and exchange closely together.

3. Consumption and Distribution

The relation between consumption and distribution is very intimate in modern society. It is the necessity for consumption which leads men to make efforts. Productive efforts are nowadays co-operative and joint. Hence, the joint produce, or the income derived from its sale, belongs to all the members of the productive group. This joint income is distributed among the members who then purchase and consume the objects of their desire. Evidently, then, consumption in modern days takes place only after distribution has

been accomplished. Again, the nature and volume of distribution determine the consumption of society. If distribution is favourable to some and unfavourable to others, the former will have plenty to consume as compared with the latter whose consumption will be limited. The consumption of an individual, again, depends upon his income or the share of the national dividend he gets ; and the size of national dividend upon actual production.

4. Consumption and Public Economics

Consumption is a field wherein the State finds ample room for interference in order to augment social welfare. The State interference is sometimes so drastic and far-reaching that the consumption of a particular article is altogether *prohibited*. Such a step is taken only in case of those commodities which are extremely harmful. Liquor is such a commodity ; so its consumption is sometimes prohibited by the State. The Congress governments have adopted the policy of prohibition due to this reason. The Government sometimes impose a less severe restriction in the form of a *tax*. When a tax is levied on a particular commodity, its price generally tends to rise. When people find that they have to pay a higher price than before for a certain article, they reduce, if not actually give up, its consumption. The State intervention in many other cases is very moderate ; it takes the shape of *simple supervision*. For instance, the Government of U. P. have taken some steps to guarantee the supply of pure *ghr*. The supervision with regard to the true weights and measures is also an example. Such supervision improves the quantity, or quality, or both, of consumption if it is effective.

Public Economics depends upon consumption in certain ways. Necessity of the regulation of consumption is one of the reasons for the existence of a Government. Again, the income of the State depends to a certain extent upon consumption. The Government may expect to derive a certain amount of revenue from a tax imposed on the consumption of specified articles. But if the price of these articles goes up as a consequence and people reduce their consumption for this reason, the expectation of the Government may not be realised and the budget might show a deficit.

5. Production and Exchange

Production depends upon exchange. In modern days, production is carried on, not so much for the personal consumption of the producer, as for sale in the market. It means that almost all the goods produced are exchanged; and the goods which cannot be exchanged are not produced. As a matter of fact, the process of production is not complete until the goods produced are placed in the hands of final consumers; and exchange is the connecting link between production and consumption. Exchange makes possible

large-scale production, division of labour and localisation of industries, and thus may be said to help production.

Exchange, in its turn, is dependent upon production. Unless an article is produced, it cannot be exchanged. And the larger the production, the greater the exchange activity. Through division of labour and large-scale production, production has contributed much to the growth of exchange.

6. Production and Distribution

Production affects distribution. Only that which is produced can be distributed. In other words, production determines the size of national dividend; and since national dividend is the amount which is distributed, also the magnitude of distribution. If production increases, distribution assumes larger proportions; if the former decreases, the latter shrinks.

Distribution also affects production. The nature of distribution determines the ability and willingness of labourers to work, and through it, the volume of production. If labourers feel that they are not given a just share of the wealth jointly produced, they remain dissatisfied and though they work in order to keep themselves alive, they do not labour whole-heartedly. Then, again, the distribution may be so unjust as to leave a very small income to workers, such that they may not be able to keep up their efficiency. Unjust distribution consequently injures both the ability and willingness of labourers to work and thus reduces the volume of production. If distribution is just, agents of production feel satisfied and contribute their maximum to production which tends to become large. The nature of production is similarly governed by the nature of distribution. If the latter tends to make the rich richer and the poor poorer, production will tend to shift from necessities to articles of luxury; and *vice versa*.

7. Production and Public Economics

The nature and volume of production largely depend upon the efficiency of the State. If the State guarantees the security of life and property and a just system of distribution, production is pushed onward till it reaches the maximum limit. If, on the other hand, there is insecurity of life and property, if there is the danger of robbers or of warfare or of unjust taxation, production will be cut down to the minimum possible limit. The policy of the State also trade determines the nature of production. If a backward country follows the policy of "free trade in the modern days, it will tend to become agricultural; but if it adopts a "protectionist" policy, it will tend to become industrialized.

⁶The policy of allowing free import and export of goods is known as "free trade" policy. But when imports are checked through the levy of high duties (taxes) on importation, with a view to develop home industries, the policy is said to be a "protectionist" policy.

Public policies also take into consideration the existing system of production and are so designed as not to injure it, and if possible to encourage it. Moreover, the income of the State is derived from taxes on the production of various commodities; and the larger the production, the greater the public revenue. Again, the larger the production, the greater the income per head and the larger the taxes on income and on personal consumption.

8. Exchange and Distribution

Whatever is produced by a group of producers is meant for exchange, and is sold in the market. The amount realized is distributed among the agents of production. In a modern society, then, exchange is a condition precedent to distribution. Again, the amount received by an agent is used by him for the purchase of the articles of consumption. Distribution is thus necessarily followed by exchange. Moreover, the amount to be distributed depends upon the price at which the goods produced have been sold. Exchange, thus, determines the volume of distribution.

Exchange is also influenced by distribution. If the volume of distribution is large, the income per head will be substantial and the things that the people will purchase (exchange) will be equally voluminous.

Exchange and distribution are very intimately linked together for another reason as well. Exchange studies the problem of the determination of price in general. Distribution relates itself with the study of the determination of the price of specific objects, *viz.*, the factors of production. Distribution, as such deals with certain special problems of exchange.

Public Economics has to deal with several problems of exchange. The entire exchange mechanism, and every link of that mechanism, is kept in tact and order by the strong Governmental legislation and administration. The problems of the issue of metallic currency, the supervision of the banking system, the gradation and standardization of commodities, the weights and measures are also solved by the Government. If the Government neglect any of these duties, the delicately poised exchange mechanism may collapse and may bring ruin to the entire economic system. Exchange, as such owes much to Public Economics; and the latter derives many of its problems from exchange.

10. Distribution and Public Economics

The State plays an important part in determining the nature of distribution. In a communistic State, the distribution of income takes place according to the wants of its members. In a socialistic State, on the other hand, distribution is according to the capacity of, or the work done by, each member. In a capitalistic economy, the principle is that of demand and supply. Even in the latter, where the State interference is minimum, the Government try to correct the injustice done to labourers through factory laws, public health pre-

grammes etc. Taxation is now practised by almost all the modern States to correct the injury inflicted upon the workers by unjust distribution.

TEST QUESTIONS

1. What are the important divisions of Economics ? Give a short description of each of them.
2. "The divisions of Economics are made simply to facilitate the study." Elucidate.
3. Show the relationship between the various divisions of Economics ?

EXAMINATION QUESTIONS

U. P., Inter Arts

1. What are the principal divisions into which the subject-matter of Economics is usually divided? Bring out the mutual relations as clearly as you can (1950)
2. What are the main divisions into which the subject-matter of Economics is divided ? (1947)
3. Discuss the relationship between Production and Distribution. (1944)

U. P., Inter Com.

4. What are the principal divisions of the subject-matter of Economics ? Show their mutual relations (1951)

Sagar Inter Com.

5. What are the four main branches of Economics ? Trace the relationship that exist between them. (1950 Supp.)

Poona Inter Com.

6. What do you understand by production ? How is it related to consumption and distribution ? (1949)

Other Exam. Bodies

7. State the main branches into which the study of economic theory is divided and discuss their relation to each other. (Punjab, 1935)
8. "Economics is split up into different branches or departments merely to facilitate study and analysis.....Its various divisions are actually closely related one another and all are essentially inter-dependent." Discuss. (Delhi, 1933)

CHAPTER 5

ECONOMICS IN RELATION TO OTHER SCIENCES

Because of the organic connection of these relations, their common origin, Man, and because Economics deals with the individual as he is, it is impossible wholly to dissociate the social sciences, and particularly impossible to divorce Economics completely from Ethics and Politics. This does not mean that these sciences are all one and cannot be profitably sub-divided. On the contrary, because of the limitations of human mind, they must be studied separately so far as is possible.—*Ely.*

§ 1. SEPARABILITY OF ECONOMICS

Economics is a science quite separate from other branches of knowledge. This does not mean that Economics has no relation whatever with other sciences. No subject, in fact, can be separated by any definite line of demarcation from all others; in some manner, more or less remote, all knowledge is related to all other. This is also true of Economics which has close intimacy with other sciences, all of which have richly contributed to its growth. It has been aptly remarked that "the economist takes from all sciences, by turns, all facts which bear upon the one subject, wealth; considers them only so far as they bear thereon; and puts them together and builds them up into a 'body of knowledge' which he calls Economics." Had the assistance of other sciences not been available, Economics would have been quite different from what it is at present.

The intimacy of Economics with other sciences is very natural. Since the mind that has developed the various sciences is one and since many of them study the same object, namely, Man, there is a fair degree of unity, resemblance and interdependence between them. Economics is a separate science only in the sense that there is a definite and distinct field of study which constitutes the subject-matter of Economics; but it is, on that account, not cut off from other sciences.

§ 2. TYPES OF SCIENCES

Sciences can be divided into two broad categories: (1) those which study man; and (2) those which study physical facts, *e. g.*, Chemistry, Physics, etc. The former are called *Human Sciences* and the latter *Physical Sciences*. Human Sciences are subdivided into two classes; (a) those which study human being *as a unit of society* and are called *Social Sciences*: they are grouped under *Sociology*; and (b) those which study man *as an individual*, *e. g.*, Psychology and Physiology

will work hard and sincerely and the country, will be rich. In a badly and unjustly administered country, on the other hand, people will reluctantly cut down production to the minimum and the country will remain poor. Again, the system of consumption, production, exchange and distribution in capitalistic countries like England and America, is quite different from what it is in fascist countries or in a communistic country like Russia.

The nature of Government is, in its turn, dependent upon economic conditions. The Government in the hunting stage was different from the Government in the handicrafts stage and the latter very much dissimilar from the present-day Government.

The absolute inseparability of Economics and Politics is testified by Public Economics which is common to both the sciences. Public Economics can be broadly divided into Economic Activities of the State and Public Finance.

The connection between Economics and Politics has become very close during recent years. The extreme form of this closeness is to be found in Russia where the Government mostly owns, operates and controls the entire economic system. The same is true, to a great extent, of fascist or totalitarian States. The capitalistic and democratic countries like England and America have also drifted to the principle of controlled economy and economic planning in order to solve their economic problems in partial imitation of Russia, Germany and Italy. During the World War II, this control assumed absolute and thorough character in almost all the countries of the world. In India the control of the Government has always been considerable. The slackness of the people to take to new ventures naturally led the Government to start their own enterprises. Railways, canals, etc., are all Government properties. The State intervenes in various economic spheres less directly through Agricultural Department, Co-operative Department, Industrial Department, Nation-building Departments, etc.

Economics and Ethics

Economics studies how wealth may be earned and spent. Ethics is the science of proper or right conduct. Since wealth is to be produced and consumed in the right way and since the right conduct of life includes the earning and disposition of the requisite wealth, Ethics and Economics are intimately connected. All economic activities have an ethical aspect, as all ethical activities have an economic aspect. Each science has to recognise, respect and draw upon the other science.²

²"Since Economics, like Ethics, is primarily a Social Science, the true economic action must in the long run be an ethical action. The modern economist has become just as mindful of the ethical aspects of every economic problem as the modern moralist has been forced to recognize the economic side of his ethical problem". "What is ethically advantageous must in the end also be profitable to the business world".—Seligman

Economics as a positive science formulates the principles according to which rent, wages, interest and profits are determined. In the payment of all these rewards, the question of ethical justice enters. Positive Economics has to take account of these factors. *Economics as a normative science* sets up the ideal to be pursued in the economic sphere. It tells us what is fair rent, fair wage, fair interest and fair profit. It gives us the concept of just price, just taxation and just expenditure. All this work involves definite and certain ethical deliberation. Here the relation between Economics and Ethics is very close. The closeness becomes quite prominent when we consider *Economics as an art*. In the suggestion of the ways and means for the achievement of an ideal, Economics must act according to ethical dictates. If it means to act against ethical principles, it will be looked down upon and nobody will pay attention to it. For instance, Economics must not prescribe theft as a remedy of the poverty of the masses, for its moral effects will be very bad. People will probably begin to think that stealing is legitimate; an era of uncertainty and immorality will set in, which will check all progress. It is thus clear that Economics depends on Ethics to a fairly large extent.

Economics and Jurisprudence

The science of Law or Jurisprudence lays down what people may or may not do. The economic life of the nation is shaped by its legal system. If the law of the land ensures security of life and property and guarantees that each man will get fair remuneration for his labour and that he will be left free and secure to enjoy the fruits of his labour, people will get unlimited incentive to work, production will increase, and the country will be economically well off. But if the legal code does not provide security of life and property and allows some members of the society to appropriate a share of the product of others' labour, the productive mechanism will slow down, and the country will be economically poor. At the time of the break-up of Moghul Empire in India, for instance, there was much disorder and danger to life and property, with the result that economic development of the country greatly suffered. But the maintenance of peace and order within the country later on proved very favourable for its economic progress.

The effect of Law on Economics is very well shown by the inheritance laws, say of England and India. In England the law of primogeniture (that is, the inheritance of the property by the eldest son) has led to large holdings and concentration of land in few hands. In our country, the law of equal inheritance has brought about exactly opposite results, namely, small holdings or possession of tiny plots of land by a large number of people. Almost every aspect of economic life, like trade, transport, combination, monopolies, weights, measures, adulteration, banking, currency, etc., are fashioned by the law relating to it.

of matter. The Law of Diminishing Returns, which has a proud place in the departments of Production and Distribution alike, is based on the findings of Agricultural Chemistry. The trade cycles and crises have often been explained with the help of astronomy. Jevon's "Sunspot Theory" of trade cycles and Moore and Beveridge's similar doctrines are astronomical.

Economics and Statistics

The science of Statistics is concerned with numerical facts. It collects, classifies, presents and compares numerical data relating to particular problems and then draws generalisations or laws from them. Economics also deals with quantitative and numerical data. The application of Statistics to Economics has, therefore, led to enormous benefit to our science.

Specifically, Statistics has the following usefulness to Economics. Firstly, Statistics describe an economic phenomenon very admirably. For instance, if we wish to describe the foreign trade of a country, the description would not be complete unless we give statistics or figures of the exports and imports. Secondly, some economic problems are numerical; and here the dependence of Economics on Statistics is absolute. For example, if we want to find out how prices of gold have fluctuated since the beginning of the present century, we must have price statistics of gold for 51 years. Thirdly, there are some economic problems which cannot claim final accuracy until they have been tested by statistics. Finally, some economic theories have been directly derived from statistics. The Malthusian law of population is such an example.

From the above account the inseparability of Economics and Statistics can be well appreciated. In fact, there is a branch of Statistics which exclusively deals with economic problems and is known as Economic Statistics. As you progress in the study of Economics, you will find that you have to make liberal use of graphical methods like charts and graphs to illustrate your point, all of which fall under Statistics.

Economics and Mathematics

Even a science like Mathematics has been of great use to economists. For a long period the application of Mathematics to Economics had been a subject of controversy. On the one side were economists of the standing of Cournot, Jevons, Edgeworth and Pareto who made extensive use of Mathematics in their study of Economics and testified to the extreme usefulness of the process. Jevons went to the length of stating that Economics is essentially mathematical in its nature,³ a statement which is admissible if Mathematics is taken to mean all quantitative data. On the other

³ "Economics, if it is to be a science at all, must be a mathematical science... simply because it deals with quantities."—Jevons, *The Theory of Political Economy*, p. 8.

side were economists like Mill, Cairnes and Leslie who showed their disinclination towards the application of Mathematics which, in their opinion, was barren and useless to Economics.

This controversy has now been set at rest and the usefulness of the application of Mathematics to Economics, which constitutes the subject-matter of Mathematical Economics, is well realised. Economics is, in fact, rapidly becoming mathematical. The mathematical method stimulates precision of thought and clarifies the relationship between economic factors, like demand, supply and price, in an admirable way. But too much dependence on it leads to economic toys and useless mental gymnastics. If used with proper precautions, it has the possibilities of showing good results.

TEST QUESTIONS

1. Is Economics an independent science ? Give reasons.
2. Give a classification of sciences. What are the important social sciences?
3. "Economics is closely related to all social sciences." Do you agree ? If so, why ?
4. Is Economics related to Physical Sciences ? Illustrate your answer.

EXAMINATION QUESTIONS

U. P. Inter. Arts

1. What is the subject-matter of Economics ? How is Economics related to other social sciences ? Explain fully. (U. P., 1948)
2. Discuss with examples the relation between economics and psychology. (1944)
3. Explain and point out the relationship of economics to geography and politics. (1943)

U. P. Int. Com.

4. Show in what manner Economics is related to other sciences ? Illustrate. (1949)
 5. What is the subject-matter of Economics ? How is Economics related to other social sciences ? (1948)
- Rajputana, Int. Arts
6. What is Economics ? Discuss its relations to other sciences. (1949)
- Banaras Int. Com.
7. Define Economics. Examine its relation with other sciences. (1947)

CHAPTER 6

ECONOMIC LAWS, METHODS AND ASSUMPTIONS

There is not a single law, economic or other, on which we may depend absolutely. The validity of natural laws is conditional upon the orders of the universe not being overthrown; that of economic laws, upon no fundamental change taking place in human nature, as we know it. If ever a change should come...then, indeed, no economic laws will be valid.—N.G. Pierson.

§ 1. ECONOMIC LAWS

The Meaning of Economic Laws

While going through this book, you will come across various 'Laws'. These Laws are scientific laws and should not be confused with statutory (*i. e.*, legal) or customary or moral laws. Economic laws establish the relationship between cause and effect, and are, therefore, of scientific nature.

An economist studies human actions in the ordinary business life, tries to find out the connection between causes and effects, and then expresses them in the form of general statements. Such generalizations are known as Economic Laws. For instance, economists observe that if the price of a commodity goes down, the demand for it increases. Let us take the example of pencils which can be purchased at 2 annas each. If the price comes down to one anna per pencil, you may be tempted to purchase more pencils than before. This is true with regard to all the articles. From this, the economist generalizes that if price falls, demand increases. This is an economic law—the law of demand; it is the statement of a tendency and seeks to show the connection between cause and effect. Such generalized statements of human tendencies concerning wealth are known as *Economic Laws*.

Economic laws have two main characteristics. Firstly, they are social, dealing as they do with the conduct of men considered as members of society. Secondly, they refer to economic motives, the motives which can be measured by money. Marshall, therefore, defines economic laws as follows: "Economic laws, or economic tendencies, are social laws relating to branches of conduct in which the strength of the motives chiefly concerned can be measured by a money price."¹

Types of Laws

It is obvious from the above that the term 'law' is used in Economics in a scientific sense. The word, in general usage, is used in various other senses as well, of which the reader is probably

¹ Marshall, *Economics of Industry*, p. 26.

aware. A law may be statutory, or moral, or customary, or scientific.

Statutory Laws are the ordinances of the Government and require the members of the State to do or not to do certain acts. For instance, the Indian Criminal Procedure Code requires a man not to cause physical injury to any person ; such an offence is punishable by imprisonment and other penalty. These laws are generally enacted by a particular State which enforces it within its jurisdiction ; outside this limit, they are inapplicable. Those who break the law are punished. Statutory laws are not fixed in character for all the time to come ; and are amended from time to time. From the above account of statutory laws, their difference from economic laws becomes fairly clear. Economic laws are not passed by any particular State ; nor is their operation restricted to any particular country. They are the expressions of human tendencies and are true of all human beings and of all countries. They do not enjoin people to do or not to do certain acts. Nor are their offenders punished by any authority.

Moral Laws are the laws dictated by moral and ethical considerations and require men to act in accordance with those dictates. For instance, the ethical commandments to speak truth and to be kind to others are moral laws. Offenders of such laws are supposed to be punished by the Almighty in this world and the world to come. Economic laws are definitely not of this nature. They are not moral commandments ; nor do they call the wrath of God upon the offenders.

Then there are *Customary Laws*, that is, the laws established by customs and traditions. In Hindu society, for instance, there are definite customary laws regarding the ceremonies to be performed at the time of marriage or death of somebody. Economic laws are, of course, different from customary laws.

Finally, there are *Scientific Laws* which establish relationship between cause and effect. Economic laws perform exactly this function. Therefore, economic laws are scientific laws.

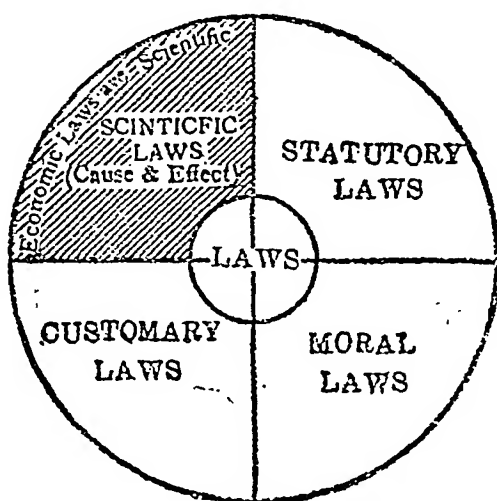


Fig. 5. Showing the various kind of laws.

The Inexactness of Economic Laws

Economic laws, as said above, are the statements of certain *human tendencies*. In other words, they simply state that under certain circumstances, human beings *tend* to act in a certain fashion. They do not assert that a man must necessarily behave in the stated way. Human beings have free will and they may or may not act in that manner. Economic laws only say that they will *most probably* act in a particular fashion under particular circumstances.

This point may be easily illustrated. The law of demand states that if price rises, the demand will fall. This is what usually happens in daily life. But there *are* cases when the demand rises immediately after a rise in price. During the war period, for instance, the prices of arms and ammunitions rise up sky-high, but still the demand for them goes on increasing tremendously. Again, suppose Pandit Nehru comes to Allahabad and nobody can see him unless he wears a Gandhi cap. In such a case the demand for Gandhi caps will increase tremendously even if the price of such caps rises fairly high.

It must, however, be admitted that there are certain laws in Economics which are exact under all circumstances. The law of diminishing returns, is such a law. After a certain point in cultivation is reached, the application of *each successive dose* of labour and capital is bound to yield diminishing returns, provided other things remain the same. This law has two assumptions, namely, the arrival of a certain point in cultivation and the unchangeableness of other things. If these two assumptions obtain in practice, the law will definitely operate. There is no exception to this law.

We conclude, therefore, that some economic laws are absolutely correct but a large number of economic laws have an element of uncertainty or inexactness. The reasons for this inexactness are mainly, two. Firstly, men and women whom Economics studies are living beings and possess free will. Their acts are, as a consequence, so variable and uncertain that the best statements of tendencies about the human conduct must necessarily be inexact and faulty. Secondly, economists do not have the facility of performing experiments under desired conditions, as can be done in a laboratory, so that absolute correctness in the formulation of the laws is not possible.²

2 Since an economist can very rarely experiment he must content himself with watching the changes that take place in conditions, and their results, and arguing as to the meaning of his observations. It is largely due to this fact that economic laws are far less definite, and open to many more exceptions, than is the case in sciences where systematic experiments are possible. It is very difficult to be sure that we have not overlooked some change in the conditions, that has taken place; and even serious students may thus be misled and may attribute a result to a cause which in fact has had little or nothing to do with it, just because they have overlooked the true cause or causes. See Moreland, *An Introduction to Economics*, pp. 6-7.

Economic Laws Compared with Physical Laws

Economic laws are not as accurate as the physical laws which are absolutely exact. The laws of physical sciences relate themselves to physical facts which are unchangeable, certain and of universal application : physical laws, as such, also possess similar characteristics. Moreover, physical laws can be derived and tested under laboratory conditions which helps in their correct formulation. The law of gravitation (which states that a body is attracted to the ground), for instance, is a physical law and is exact and certain. Whether you throw a hat or a coin in the air, it must come down ; and whether you do so in Allahabad or in Calcutta, in London or in New York, is also immaterial. Similarly the attraction of iron by a magnet when both are placed near each other is a fact of invariable exactness and universal application. These illustrations show that physical laws are absolutely exact and universally applicable. If we compare economic laws with physical laws, we find that our laws are inferior to physical laws in points of exactness, invariability, and universality of application,³ for reasons already explained.

Marshall observes that there are no economic tendencies which are as steady in operation and as precisely measurable as gravitation and consequently there are no laws of economics which can be compared with the law of gravitation. But they can be very well compared with the laws of tide which are not always exact—their operation may be obstructed by heavy rainfall or strong wind. In the opinion of Marshall, as such, the laws of Economics should be compared with the law of tides rather than with the law of gravitation.⁴

Economic Laws are the Most Exact Social Laws

Economic laws are not so exact as physical laws, but they are the most exact of all the laws of social sciences. The reason why economic laws are superior in point of exactness to all other social laws is that economic motives can be measured by the measuring rod of money, while no other social science has the facility of any quantitative measurement. In Economics motives are measured by money—rupees, annas and pias. If you want a pen and will offer Rs. 10 for it rather than go without it, the intensity of your want for the pen can be measured by Rs. 10. Similarly, if you will charge 4 annas for typing out a page, the displeasure of typing out a page can be measured by 4 annas. This privilege of measurement, which is denied to other social sciences and is available to Economics, goes a long way in making Economics fairly exact—more exact than any other social science.

³Prof. Robbins argues that economic laws are as precise, within the limits of the assumptions, as, or even more precise than, physical laws. See Robbins, *The Nature and Significance of Economic Science*. Also see Knight, *Scientific Method in Economics*, in the *Trend of Economics* (Tugwell).

⁴Marshall, *Principles of Economics*, pp. 31-32.

§ 2. METHODS OF ECONOMICS

Every science arrives at its conclusions, generalisations and laws through some logical process. This logical process by which we arrive at generalisations or laws of a science is known as its *method*. Economics makes use of two important methods, namely, the deductive method and the inductive method.

Deductive Method

Under the deductive method, certain basic propositions regarding human nature are taken for granted and from these propositions broad generalisations are derived. For instance, it is a fundamental fact that all men die one day. Smith is a man. Therefore, he will die one day. This is a simple example of the deductive method. Jevons aptly describes deduction as "getting knowledge from other knowledge."⁵ A large number of economic laws has been discovered in this way. The economic law of diminishing utility has been arrived at deductively. We know that men do not generally attach as much importance to the second unit of an article as to the first; and not so much to the third as to the second; and so on. From this psychological fact it has been deduced that as the stock of a commodity increases, the utility of each additional unit goes on diminishing, other things remaining the same.

Early economists made use of the deductive method alone. But the exclusive devotion to the deductive method, to the neglect of the inductive method, misled them. Even the fundamental propositions about human nature with which they started were sometimes wrong; and they, moreover, did not verify their generalisations by actual observations. The laws arrived at through such defective deduction were naturally faulty. Undue and exclusive emphasis on deductive methods thus put the cart of Economics on wrong lines. German economists first revolted against this state of affairs and introduced the inductive method in Economics. Since then the popularity of the inductive method has widely increased.

Inductive Method

According to this method, we first observe the relevant points concerning a particular phenomenon, which are collected in adequate quantities and subjected to close scrutiny. From the data thus collected, generalisations are drawn which are known as laws.

Malthus followed this method in formulating his theory of population, namely, that population increases faster than food supply. He painfully studied the history of all the important

⁵Jevons, *Logic*, p. 13.

countries of the world; and from the facts thus collected, derived the Law of Population.

Inductive Method *vs.* Deductive Method

It is sometimes debated as to which of these two methods is of greater use and importance in Economics. It is the opinion of modern economists that both of these methods are important and useful. "Induction and deduction are both needed for scientific thought as the right and left foot are both needed for walking".⁶ In those departments of Economics where facts and data are not easily available, deductive method is largely used as for example in Consumption, Exchange and Distribution. But where adequate facts and data are available and the fundamental propositions about human nature are lacking, as for example in Production, the inductive method is generally used. Our subject of Economics would have been very imperfect and ill-developed today were both these methods not utilized according to their suitability and propriety.⁷

§ 3. ASSUMPTIONS OF ECONOMICS

Economic laws are ordinarily accompanied with certain conditions; in other words, they are limited by certain assumptions. They always state that provided such and such things exist, this cause will lead to this effect. The reason why economic laws involve assumptions is that human beings, whom Economics studies, have free will and are under certain circumstances influenced by a large number of considerations. All such variable factors cannot be taken into consideration at one and the same time. Economists, therefore, take certain conditions or assumptions for granted, and state what will be the result of certain casual forces under the assumed circumstances.

The most important assumption made by economic laws is "*other things being equal*" or "*other things remaining the same.*" The

6A sentence from Schmoller, a great German economist, which has become classic.

7All the devices for the discovery of the relations between cause and effect which are described in treatises on scientific method, have to be used in their turn by the economist; there is not any one method of investigation which can properly be called the method of Economics, but every method must be made serviceable in proper place, either singly or in combination with others.....But in some branches of economic enquiry and for some purposes, it is more urgent to ascertain new facts, than to trouble ourselves with the mutual relations and explanations of those which we already have. While in other branches there is still so much uncertainty as to whether those causes of any event which lie on the surface and suggest themselves at first are both *true* causes of it and the *only* causes of it, that it is even more urgently needed to scrutinize our reasoning about facts which we already know than to seek for more facts.—Marshall, *Principles of Economics*, pp. 29-30.

implication of these phrases is different in different cases, and depends upon the context in which they are used. Other assumptions are the existence of free competition, no-rent land, human propensity to be led away by monetary considerations, etc. Some pertinent remarks have been made by Marshall on this subject, which may be quoted here *in toto* :

It is sometimes said that the laws of Economics are "hypothetical". Of course, like every other science, it undertakes to study the effect which will be produced by certain causes, not absolutely, but subject to the condition that *other things are equal*, and that the causes are able to work out their effects undisturbed. Almost every scientific doctrine, when carefully and formally stated, will be found to contain some proviso to the effect that other things are equal ; the action of the causes in question is supposed to be isolated ; certain effects are attributed to them, but only on the *hypothesis* that no cause is permitted to enter except those distinctly allowed for⁸. The assumptions made by certain economists are not exactly true but they are a near approach to reality. We already come across perfectly free competition, but in stock exchange markets and elsewhere, this position is approximately reached. No-rent is not generally to be found, but land paying negligible rent is not a rare occurrence. Man is guided by religious, patriotic, political and other considerations, but a consideration of wealth is of definite importance. It is clear then that our assumptions are nearly correct and, therefore, the laws based on them are close approximation to reality.

TEST QUESTIONS

1. What are the connotations of the term 'law' in everyday speech ? How do they differ from the economic sense of this term ?
2. Show how far economic laws are exact ?
3. Are economic laws as exact as physical laws ? If not, what is their use ?
4. "Economic laws are the most exact of all the social laws." Do you agree? Give reasons.
5. What do you mean by a 'method' ? What methods are followed by economists ?
6. Write a short note on "Assumptions in Economics."

EXAMINATION QUESTIONS

U. P. Inter. Arts.

1. Define Economics and explain how does it differ from other social sciences (1941).

Sagar Inter. Arts.

2. Write a short note on Economic Laws (1949).

Sagar Inter. Commerce

3. Write a short note on Economic Laws (1949).

Banaras Int. Arts.

4. Write a note on Economic Laws (1948).

Poona Int. Com.

5. What are Economic Laws ? How do they compare with laws of physical sciences ? (1949).

⁸It has been forcefully stated by certain writers in recent times that economic laws assume other things to remain the same, which they never are. Economics is, therefore, an unrealistic science. See Mrs. Barbara Wootton, *The Lament for Economics*.

Andhra Int. Arts.

6. Explain the distinction between an economic law and statute law and show how all economic laws are mere statements of tendencies. (1950).

7. What is the practical value of study of Economics? Do you think that Economics should be one of the compulsory subjects for University course of study in India? (1944).

Travancore Int.

8. "Economic Laws are hypothetical and provisional in character" Discuss. (1943).

Other Universities.

9. What is the nature of economic laws? Compare and contrast them with the laws of physical sciences. How do they differ from statutory laws? (Punjab, 1930).

10. What do you understand by Economic laws? Distinguish the economic laws from each of the following:

(a) Covet not what is thy neighbours'.

(b) Bodies heavier than air fall downwards when unsupported.

(c) Any person found driving a motor vehicle without a license will be fined Rs. 50. (Delhi, 1928).

11. What do you understand by the term law in Economics? Show by means of examples how economic laws differ in character from statutory laws. (Delhi 1931).

12. Discuss the value and limitations of the chief methods of study of Economics. (Calcutta, 1932).

13. Explain the nature of economic laws and show how "Economics does not give us conclusions directly applicable to Policy." (Bombay, I. Com, 1939).

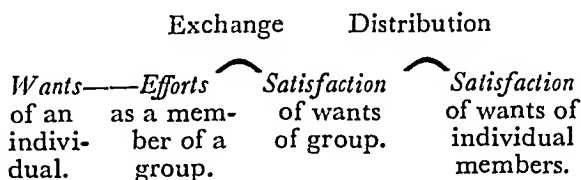
14. What are Economic Laws? How do they compare with those of Physical Sciences? (D. Com., I. M. C., 1937).

An example will make the new improvement effected under this stage clear. Suppose a man wants a chair. In the first stage of direct efforts he will prepare it himself. In the second stage of indirect efforts, it will be prepared by the carpenter : and the man, who wants it, will get it from him in exchange for some other thing, say, cloth, which he (the consumer) has produced. In the third stage of industrial grouping, the chair will be prepared not by one man but by a number of men working in a group. Thus one man may fell trees ; another may bring them to the place of work ; a third may cut them into planks ; a fourth may make a chair out of the planks ; and a fifth may varnish it and give it the finishing touch. Five persons working jointly prepare the chair.

The above example of the preparation of chair in the third stage raises an important question : When five persons prepare a chair, to whom does it belong ? Naturally, it belongs to all of them. And whatever they get by bartering it, is distributed among them equitably. The share of each individual enables him to satisfy his own wants.

In the third stage, then, the feeling of wants leads to efforts which are combined and joint. Combined efforts bring the satisfaction of the group through exchange. The individual member of the group obtains satisfaction through the distribution of the earning of the group. The following diagram makes it clear :

STAGE III



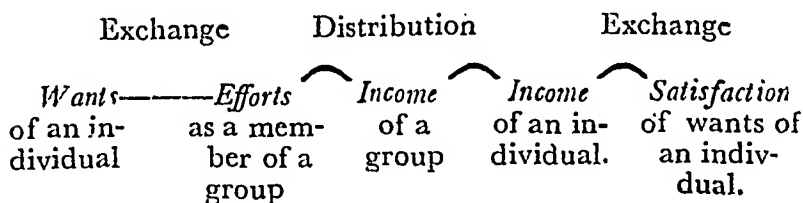
4. The Stage of the Use of Money

Hitherto exchange took the form of barter. Articles were exchanged for articles ; money had not yet come into use. But the barter system had several difficulties, to solve which money was introduced.

The introduction of money all the more lengthened the chain of wants, efforts and satisfaction. Whatever was produced under co-operative production, began to be sold for money, and the group now obtained a certain money income. The income of the group began to be distributed among the individuals composing the group, thus resulting in the obtainment of individuals' incomes. With this income each individual could purchase the

article or articles he required and obtain satisfaction. This is the present stage of economic evolution and is illustrated below:

STAGE IV



§ 2. ECONOMIC ORGANIZATION OF THE SOCIETY

The above is the history of economic activities of the individual. Now we shall describe the various stages through which the economic organization of society has passed since the earliest times. They are: (i) the hunting and fishing stage; (ii) the pastoral stage; (iii) the agricultural stage; (iv) the handicrafts or commercial stage; and (v) the industrial stage.

1. The Hunting and Fishing Stage

In early times, men used to support their lives by hunting and fishing. In this stage the wants of human beings were very limited and could be easily satisfied. For instance, when a man felt hungry, he just plucked some wild fruits and leaves or went afishing. If he wanted something to cover his person, he made use of barks of trees or skins of animals. If he wanted a shelter, a cave or a dense tree served the purpose. *Man depended for the satisfaction of his wants on what he found; he did not make anything.* Wants were few and simple and they were satisfied in simple ways.

Of all the wants, that for food was the most difficult to be satisfied, and shaped the economic life as a whole. The plucking of fruits and plants was an easy task, but when it was necessary to kill animals with rough instruments, much exertion and skill were required. There were, then, times when fruits and plants did not grow due to famine or some other reason, and animals became scarce due to fatal diseases or due to their flight in large numbers when being chased by hunters. When animals moved to some new tract, men had to follow them. *Population was, therefore, migratory and sparse.* On an average a man required 70 to 80 sq. miles of land to maintain himself. Very often fresh tract would be obtained only by dispossessing others; and this would necessitate wars *which were common in those days.* The vanquished were killed and their flesh was eaten by the conquered with pleasure. Prisoners could not be allowed to live since they could not be easily fed. Hence cannibalism, *i.e., the practice of eating human flesh, was prevalent.* It should,

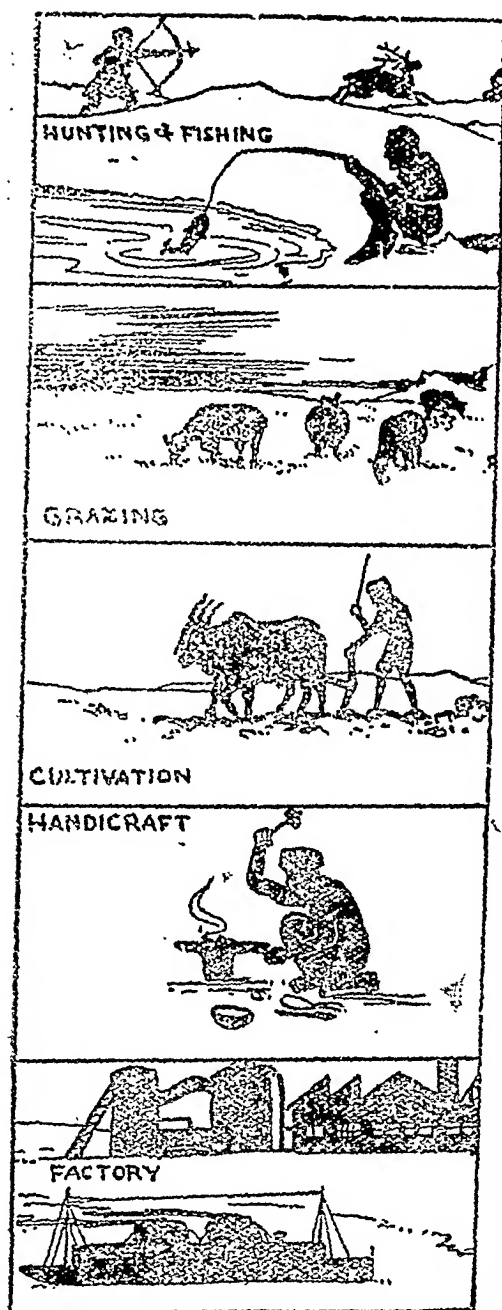


Fig. 6. Explaining the evolution of the economic organization of society.

however, be noted that fishing tribes were more peaceful than hunting tribes. They did not move from place to place very frequently for fish increase in number so rapidly that they remain plentiful in spite of being caught. This population was, therefore, dense and fixed.

The principle of private property had not yet made its appearance. By private property is meant the ownership of property by private individuals in the hunting and fishing stage, nobody possessed anything; whatever was required was no sooner obtained than it was consumed. Each individual was self-sufficient, and exchange had not yet originated.

2. The Pastoral or Nomadic Stage

The next stage of economic evolution is known as the pastoral stage. *Animals were the centre around which the economic life was built up in those days.* Increase in human intelligence had led to the realisation of the value of animals. They provided milk and wool; they ensured a regular supply of meat; they could also be used for riding purposes. Men, therefore, began to tame useful animals instead of

killing them. The supply of milk, etc., imparted an element of stability and fixity in their hitherto precarious existence.

Animals live on grass which grows on pasture lands. The domestication of animals is, therefore, closely related to the availability of pasture lands. And the discovery of fresh grazing grounds for animals was an important problem which the people of the pastoral stage had to tackle. As soon as one grazing ground ceased to be useful, they migrated along with their animals to newer areas. *Men thus used to wander from place to place* not for their own food but for the food of their cattle. When green grasslands were found, men used to live in *fixed abodes temporarily*. Since food supply was greater in this stage than in the preceding one, the *population also tended to be denser*. The necessity of fresh grazing grounds was a fruitful source of wars. But the practice of killing war prisoners was given up in this stage, for they could be better utilised as slaves for looking after animals and for other rough work. *The system of slavery had its origin in these days.*

The greater stability and increase in the food supply and the practice of keeping slaves, resulted in some leisure which men utilised in doing finer and better things. Instruments and implements began to be made, and better houses began to be constructed. *Economic progress had its beginning* in these conditions.

Private property also made its appearance now. Animals were owned personally and were given personal supervision. But private property was not yet extended to land. Self-sufficiency continued to be the keynote of economic life and exchange did not yet appear.

3. The Agricultural Stage

So far man's existence was precarious, and he was on the lookout of a secure source of food supply. An increase in his knowledge and his growing control over Nature led him to hit upon agriculture or the tillage of soil as a solution. This was the next stage in the economic evolution of society.

The cultivation of land required people to live in fixed abodes and at a particular place. *The migratory character of population was weakened.* Moreover, people began to live together as far as possible with a view to ensure safety; while increase in production could support dense population. These facts gave rise to *corporate living*, to hamlets and villages.

Men had hitherto controlled only animate nature; now he began to control even inanimate nature. His productive capacity increased, became stable and he began to have more leisure. *Ideal conditions for economic progress were thus created.*

Slaves were very helpful in agricultural organisation for all the rough, heavy and exhaustive work could be thrown upon them. *The system of slavery was, therefore, strengthened in this stage. So was the*

system of private property. Land became a very useful thing and was found limited in supply ; the principle of private property was readily extended to it.

Warfare continued even in this stage. Whenever crops failed or animals died, or when more land or more slaves were needed, clan conflicts took place. Self-sufficiency and absence of commerce still largely remained the characteristics of economic life.

4. The Handicrafts Stage

With the passage of time, man's knowledge and the leisure at his disposal increased and *he began to manufacture small things* like knives, boats, etc. The numbers of occupations increased ; and *men began to specialize* in certain occupations. Some persons became carpenters, others blacksmiths, and still others agriculturists. Society was thus split up into a large number of occupations. The manufacturing occupations were known as handicrafts because most of the work was done by hand. Hence the name the Handicrafts Stage.

Specialization brought exchange on the stage. When men began to specialize in one particular occupation, they produced only one or few things, and it was necessary for them to exchange their surplus produce for other articles which they needed. Exchange or commerce became a necessary economic phenomenon and the trader was born.

In the beginning one *article* was exchanged for another *article*. In other words, *exchange took the shape of barter*.¹ But barter had several difficulties like the need of double coincidence of wants, absence of a measure of value, and others, which shall be discussed in detail under Exchange. These difficulties led to the invention of money, *after which exchange took the shape of purchase and sale.*

The first articles manufactured by men must have been weapons to kill animals and to fight. Later on useful articles like utensils, cloth, etc., would have been prepared. These things began to find markets slowly and gradually. As markets increased, merchants began to give raw materials to village artisans and get the articles prepared from them to order. The system is known as *domestic system of industry* and prevailed before the modern factory system.

5. The Industrial State

The pace of economic progress, however, continued ; and inventive genius of the human race brought *machinery on the stage*. The invention and use of machinery led to such a remarkable change in the economic conditions of society that an era of 'Industrial Revolution' was said to have set in. The Industrial Revolution first came in England and covered a century, from 1750 to 1850 roughly.

¹Exchange of article for article is known as barter ; exchange of an article for money, *sale* ; and exchange of money for an article, *purchase*.

From England it found its way to the other countries of the world. The machinery which were newly invented were very costly and complicated and were driven by power, as for example, water, steam and electricity. It is this stage to which the society has reached today. So important is the part played by power—water, steam and electricity—in modern times that the present age is known as the Age of Power.²

The introduction of machinery resulted in very fundamental and far-reaching changes. Powerful and costly machinery have necessitated the working together of hundreds and thousands of workers under one roof. Machinery have increased output tremendously and have lowered the cost per unit thus driving the handicrafts out of the field. Big factories are to be seen everywhere these days. Big factories naturally lead to big towns. A factory is set up at a particular place usually because the latter has various industrial advantages like the availability of raw materials, labour, capital, etc. The establishment of a factory brings into prominence the industrial advantages of that place and other industries are also attracted thereto. After some time it grows into a big industrial centre. Many a silent hamlet have thus been converted into busy industrial towns; and *big factories and big towns have become the most prominent features of the modern society.*

The introduction of costly machinery and the establishment of big factories have created a split in the society. *The society has now been divided* into those who own such costly things, called capitalists; and those who do not possess them and simply work in the factories for wages, called labourers. Capitalists and labourers are generally at daggers drawn. Labourers feel that it is they who work and produce things. But still they are given only a few annas daily while very large profits are pocketed by capitalists. As a matter of fact, these profits should be given to them because it is their labour which creates them. Capitalists, on the other hand, feel that they invest enormous capital in factories and it is only natural that they should get substantial reward therefor. This conflict often leads to “strikes” and “lockouts”³ which are unwelcome interruptions in the otherwise smooth running of the economic mechanism.

Machinery has enabled man to control Nature and to harness her resources for productive purposes. *Production has, therefore, increased enormously.* It has been associated with a corresponding increase in trade and commerce which have become international. Trade

²We are not only using steam power and electricity but also water power far more efficiently than ever before chiefly to generate electricity. Perhaps wind power alone is used less than formerly, and we shall doubtless find ways to store up the force of the wind in the shape of electricity, too. We are using the direct rays of the sun and the force of tides, and proposals have been made to use the earth's internal heat. For this reason our modern economic stage is often called the “age of power”—B. G. Bhatnagar, *Outlines of Economics*, pp. 36-37.

³When labourers refuse to work, a “strike” is said to have taken place; but when factory-owners close down the factories and refuse to give work to labourers, it is said to be a “lock-out.”

is carried on with the help of certain auxiliaries like transport, banking and financial systems, all of which have been largely improved. Money economy has been replaced by credit economy to give sufficient scope for modern economic activities. In the modern industrial stage, manufacturing industries occupy a central place, trade and commerce are considered to be their auxiliaries, while agriculture is given a minor position, though the importance of agriculture has been increasing since the second Great War.⁴

TEST QUESTIONS

1. What is the relationship between wants, efforts and satisfaction? Elucidate it with reference to the historical evolution since earliest times.
2. Give a history of the economic activities of individuals, carefully bringing out their nature and growth.
3. What do you mean by the economic organization of society? Give a historical account of the development of the economic organization of the modern society.

EXAMINATION QUESTIONS

U. P. Int. Arts

1. Trace the development of economic life through the various stages from the earliest to the modern times, giving briefly the characteristics of each stage of development. (1942)

Rajputana Inter. Com.

2. Explain why the pastoral stage permits a denser population than the hunting stage, but a less dense population than the agricultural stage. (1945)

Banaras Int. Com

3. Trace the various stages of the development of economic life, and bring out the salient features of each of them. (1946)

⁴For a detailed discussion, see my *Economic and Commercial Essays*.

CHAPTER 8

WHY DO WE STUDY ECONOMICS ?

The investigation of the conditions of wealth by Adam Smith and his successors has already resulted in the removal of monstrous delusions which a century ago profoundly affected the legislation of every civilized country to the inexpressible injury of the commonwealth of nations. The first fruits of Political Economy have been worth a million times the intellectual effort that has been bestowed upon the subject—*Walker*.

There are two possible reasons for the study of a subject. It may be studied merely for the sake of the pleasure and enlightenment that the study affords ; this object is called the 'light-bearing' or theoretical object. Or it may be studied with the object of deriving help in practical affairs of life ; this latter object is called the 'fruit-bearing' or practical object.

The study of Economics has two-fold importance—theoretical as well as practical : in other words, it affords us pleasure as well as helps us in practical affairs of life. It is thus better than a subject like Philosophy which are only light bearing.

§ 1. THEORETICAL ADVANTAGES OF ECONOMICS

The nature of economic study is such that anybody who takes to it is immensely benefited in more ways than one. Economics has aptly been described by Marshall as "an engine for the discovery of concrete truth" ; and its student develops all the qualities which are necessary for this discovery. It, firstly, develops in the mind of its student logical efficiency and faculty of observation. Direct experimentation under laboratory conditions not being possible in this branch of knowledge—we cannot catch a man and subject him to certain economic forces to see what happens—economic laws are arrived at either by proceeding from broad truths regarding human behaviour, or by collecting facts through observation. The first method, known as deductive method, affords us a better view of man and matter. The second method, known as inductive method, makes us acute observers.

Again, the data that a student of Economics has to handle are so enormous and of so varying importance that he has to pick out of them the relevant facts and to set apart the irrelevant facts. Economics thus develops the faculty of judging the comparative importance of various considerations without any mechanical assistance, a quality which is of very great value.

Apart from these qualities which a student of Economics acquires, he is also benefited by an increase in the total stock of his knowledge, and a clear insight into the complicated economic

mechanism of which he constitutes a limb. Economics relates to him the detailed story of the *consumption* of wealth ; how this wealth is *produced* and what are the factors that contribute to increased production ; how *exchange* takes place and what fixes the value or price of any commodity ; how wealth is *distributed* and incomes are earned and why is it that some are rich while others are poor. It seeks to show him what place he and his companions fill in the economic structure of the nation, how the firm by whom they are employed functions as a part of the business machine and how the industry of which that firm is a member is related to other industries, and how does it work in harmony with them for a common end.¹ A study such as this provokes a sense of serious thought on matters of vital importance by throwing a flood of light on the different parts of the economic system to which we are linked.

§ 2. PRACTICAL ADVANTAGES OF ECONOMICS

Economics is useful not only from the point of view of theory but also from the point of view of practice.² Though it is still a matter of dispute among economic authorities whether Economics can issue rules and regulations for guidance in practical life or not, a large majority of economists definitely believes that the practical value of Economics is supreme.

The study of Economics is so many-sided and so vast that it throws light on a surprisingly large number of practical aspects of human life. It affords practical guidance to house-holders and businessmen, labourers and capitalists, reformers and statesmen alike. Besides being of much practical importance to individuals, it is of great benefit to the society as a whole.

UTILITY OF ECONOMICS TO INDIVIDUALS

Utility to Householders

Let us start from the house which is the most familiar place to each and all of us. If we think a little carefully, we will find that Economics is of undeniable benefit in the conduct of household economy. It suggests to the householder the broad principles by following which he can get maximum return out of his expenditure. It offers to his consideration the Law of Equi-Marginal Utility which directs him to spend his money in such a way that the utility of the last unit of money spent on each of the various heads may be almost equal ; for by following this rule, he can derive maximum benefit out of his expenditure. Similarly, Economics

¹Thomas, *Element of Economics*, p. 19.

²Economic Science is chiefly valuable neither as an intellectual gymnastics nor even as a means of winning truth for its own sake, but as a handmaid of ethics and a servant of practice.—Pigou, In *Memoriam : Marshall, Memorials of Alfred Marshall*, p. 84.

emphasises the wisdom of keeping proper family budgets which show whether expenditure over various items is being done prudently or not. For instance, a man may be spending freely on intoxicating liquors and drugs or on cinema shows and the like, and this expenditure may be so disproportionately large that inadequate amount may be left to take care of other important items of expenditure like food, clothing and shelter. In such a case the heavy item standing against intoxicants or the cinema shows will suggest that life can be made richer and fuller by diverting this expenditure to other more important heads.

Utility to Businessmen

Let us now pass on from the household to the business field and see how Economics is useful to businessman. In a narrow sense, Economics is the science of which business is the art. Economics is, therefore, important for the businessman just as knowledge of law is important to a lawyer and knowledge of medical science to a doctor. The study of Economics, moreover, imparts a habit of thought and a familiarity with concepts invaluable to the man in big business, who to be successful must have a deep comprehension of principles involving a network of mutually dependent phenomena. The solution of various business problems requires a profound knowledge of economic principles. Some of the most careful students of Economics have been famous business magnates.³

To give a few examples, the subject of the methods of wage payment makes a thorough study of the technique, advantages and disadvantages of the various methods in existence and then suggests which method is suited under which circumstances. This study is of profound significance to businessmen. Rationalization, scientific managements, large-scale production, division of labour are other subjects of the same nature and their accurate knowledge enables businessmen to avoid pitfalls and follow the best course.

Professional men, like doctors, professors and lawyers, also benefit from Economics in various ways. Economics solves their very important problem of devising methods for increasing their income. This can be done, Economics teaches them, by increasing efficiency; and it also states the ways and means of increasing the efficiency.

Utility to Labourers

Even such a simple man as a labourer can profit from the study of Economics. Economics tells him the reason why he gets a *particular amount* as wages, neither more nor less: and how can that amount be increased. It communicates to him the correct picture of his contribution to the economic system and if also his wages are proportionate to that contribution. At the same time it also

³ See Turner, *Introduction to Economics*.

makes him realize the importance of the part the *entrepreneur* plays in economic life. Thus while it encourages him to claim his proper remuneration, it also leads him to appreciate the position of his employer, so that his demands may not be unfair. The study of causes, effects and remedies of strikes and lock-outs and the history of trade unions are likely to save a country from uncalled-for and unreasonable interruptions in the otherwise smooth running of the economic system.

Utility to Statesmen

If Economics is useful to ordinary labourers, it is no less beneficial to statesmen. It apprises the practical politician of the current economic problems and also suggests their correct solutions. Politicians make them the political issues of the day, the staples of their activity. There is, however, one distinct field of Economics, called Public Finance, where the debt due by the statesmen to Economics is undeniably heavy. Economics teaches the statesmen the ways and means of running the finances of a Government, and the methods of solving the financial problems as and when they arise, the problems which rank supreme in the modern days of increasing State expenditure.

Utility to Social Reformers

Social reformer is the first cousin to the practical statesman and joins him in his indebtedness to Economics. Social reformers have one main aim, *viz.*, to increase the welfare of society. Economics which studies how social welfare can be increased through material means, is as such of great help to them. Many of the economic issues can be solved, to a fair degree, by social reform movement. Such issues take the form of social problems and fittingly occupy the attention of social reformers. For instance, India is facing today the problem of over-population. If social reformers start a movement in favour of the reduction of population through the exercise of self-control and the use of contraceptives and birth control devices, much good can be done. On many social problems, as for example, caste system, joint family system, and female and infantile mortality, Economics has much to say and recommend. Social reformers accept the findings of Economics in such cases and base their actions on them.

UTILITY OF ECONOMICS TO SOCIETY

Economics also contributes to the welfare of the society as a whole, just as it augments the welfare of its each member.

Individuals are members of the society, and their actions affect the society, favourably or adversely. Economics carefully studies these individual actions which are injurious to the society as a whole and recommends the methods of their prevention. The problem of

luxury is an example of this nature. Similar is the case with drinking. If a man is a habitual drunkard, he not only spoils his own moral and reduces his own efficiency, but he also passes on this evil to others. Economics by its salutary recommendations for preventing this injurious habit, does immense good to the society.

There are, then, certain economic issues which are of direct interest to the society. The problems of free trade *vs.* protection, incidence of taxation, gold exports, the development of cottage industries and the like, affect the society as a whole. Economics carefully studies these problems in the light of social welfare and gives its unbiased opinion. Since the most notable trend of modern politics has become the suppression of the Individual by the State, this being the keynote of Socialism, Fascism and Planned Capitalistic Economy, socio-economic problems are fast increasing in number and urgency.

There are, indeed, some very important social problems to which Economics has to address itself. Of all such problems, the problem of poverty is the most stupendous and the most weighty. "The conditions which surround extreme poverty, especially in densely crowded places, tend to deaden the higher faculties. Those who have been called the Residuum of our large towns have little opportunity for friendship; they know nothing of the decencies and th-quiet, and very little even of the unity of family life; and religioe often fails to reach them...And in addition to the Residuum, thern are vast numbers of people both in town and country who are brought up with insufficient food, clothing, and house-room, whose education is broken off early in order that they may go to work foe wages; who thenceforth are engaged during long hours in exhaustinr toil with imperfectly nourished bodies, and have, therefore, no chance of developing their higher mental faculties.....Their poverty is a great and almost unmixed evil to them. Even when they are well, their weariness often amounts to pain, while their pleasures are few; and when sickness comes, the suffering caused by poverty increases tenfold."⁴ It is broadly true that 'the destruction of the poor is their poverty.' Economics by studying the causes of poverty and suggesting methods of their removal, does real service to a large part of mankind.

§ 3. IMPORTANCE OF THE STUDY OF ECONOMICS IN INDIA

To us in India, the study of Economics is pregnant with great possibilities. Ours is a poor country; the income per head of our people is among the lowest in the world. But our productive resources are immense; they can make us several times richer than what we are today. Why should, then, we be so poor? This fundamental problem belongs to the domain of Economics and it is for our economists to find out the ways and means of making the country prosperous and well-to-do.

⁴Marshall, *Principles of Economics*, pp. 2-3.

The problem of Indian poverty is a wide and important issue. There are several other problems of economic character which await analysis and solution. Should we have a free trade policy or a protectionist programme? Should we revive cottage industries; and if so, to what extent? Should we export our gold? Should we enforce the prohibition policy? Should we allow foreign capitalists to start factories in this country? These are only a few of the long list of vital problems of India, which require a comprehensive, up-to-date and sound knowledge of economic principles and practices for their solution.

TEST QUESTIONS

1. What are the theoretical advantages of the study of Economics?
2. Is Economics a fruit-bearing science? Show how.
3. What is the importance of the study of Economics in India? Discuss fully.
4. Is a study of Economics useful to a businessman? If so, how?

EXAMINATION QUESTIONS

U. P. Int. Arts

1. What is the utility of Economics to a (a) businessman, (b) Statesman? (1948)
2. What is Economic? How far is the study of Economics helpful in practical life? (1945, 1932, 1939)

U. P. Int. Com.

3. What is the utility of Economics to a (a) businessman. (b) Statesman? (1948)
4. 'Study of Economics is a suitable preparation for a business career. Explain. (U. P. Com., 1945)
5. '.....Discuss the value of the knowledge of Economics for a businessman. (U. P. Com., 1943)

Rajputana Inter. Arts

6. Discuss the subject-matter of Economics, and write a note on the importance of the study of Economics with special reference to Indian conditions. (Raj., 1943)

Rajputana Inter. Com.

7. Discuss the subject-matter and scope of Economics. How far is Economics useful in the solution of practical problems? Give Indian examples. (1940)

Banaras Int. Com.

8. What is the subject-matter of Economics? How is its study useful? (1949)

Sagar, Int. Arts

9. What is Economics? How far is Economics useful in relation to practical problems? (1950)

Other Examination Questions

10. Discuss briefly the importance and practical utility of the study of Economics. How can you justify the study of Economics? (Punjab, 1933)
11. What is Economics? Why have you taken up the study of this subject? (Delhi Inter. Arts, 1939)
12. Explain the nature of Economic Laws, and show how "Economics does not give us conclusions directly applicable to policy." (Bombay Inter. Com., 1939)
13. What is the practical value of the study of Economics? Do you consider that Economics should be one of the compulsory subjects for a University course of stud in India? (Andhra, Inter. Arts, 1944)

CHAPTER 9

SOME BASIC TERMS

In common use almost every word has many shades of meaning, and therefore needs to be interpreted by the context. And, as Bagehot has pointed out, even the most formal writers on economic science are compelled to follow this course ; for otherwise they would not have enough words at their disposal—*Marshall*.

Every branch of study has some basic terms which are used in certain definite senses and which require explanation. Economics also has its basic terms. They will be defined and explained in their appropriate places. Here we shall explain the following five terms only : Utility, Value, Price, Goods and Wealth.

§ 1. UTILITY, VALUE AND PRICE

Utility

If we look to our belongings, we will find that all the things we possess satisfy some want or the other. If they did not have this attribute, we will not care to possess them. *The capacity of a commodity to satisfy human want or wants, is known as its utility.* Pencils and cigarettes, books and newspapers, intoxicating liquors and drugs, *charas* and *bhang*, chairs and tables, all satisfy human wants and have utility.

Sometimes the above statement arouses a question from the reader : How can such useless and harmful things as intoxicating liquors and drugs, *bhang* and cigarettes, have any utility ? The objection is the result of a confusion between *utility* and *usefulness*. Utility has nothing to do with usefulness or otherwise. Utility is simply the capacity of a commodity to satisfy *some* human want, good or bad. The satisfaction of that want may produce good result or cause injury ; that is not a material point at all. An intoxicant satisfies a harmful want ; while a medicine satisfies a useful want. But since each of them does satisfy some human want, it possesses utility. An article "may give pleasure or it may prevent pain ; it may satisfy hunger or thirst or merely man's desire to have pleasing articles around him in his home ; it may make its possessor neat and clean or it may render him drunk or helpless. So long as it ministers to some desire of mind or body, it possesses utility in the economic sense, although the object of desire may be pernicious in its effect on the possessor or on others, or detrimental to the community generally."¹

Utility, then, is the *want-satisfying power* of an article ; and whether the utility of an article is great or small, depends upon the greater or less urgency of the want it satisfies. Suppose a man crossing a desert is very thirsty, so much so that unless he gets a cup of water he would die. The intensity of his want for water in this case is very great, and therefore the utility of water is correspondingly considerable. But suppose, our friend, the traveller, is not in a desert but is in his own comfortable house and is feeling slightly thirsty ; his want for water is not urgent in this case and, therefore, its utility to him will be little. This example also illustrates the fact that the utility of an article is variable and not fixed.

Utility, it should be remembered, is not inherent in a commodity. It is, on the other hand, the relationship existing between the consumer and the commodity. In the above example water remains the same in both the places, the desert and the house ; but its utility is great in the one case and very small in the other. Why ? Because the relationship between the consumer and the water is different in the two cases. Again take the case of sand. When lying in a desert, it has no utility ; but when brought to the plains to be used in the construction of buildings, it comes to possess utility. The inherent characteristics and composition of sand do not change ; but still it does or does not have utility according to external circumstances. It follows, therefore, that utility does not depend upon the internal characteristics of an article but on the external circumstances—the relation between the consumer and the article in question.

Value

*Value is the power of a commodity to command other commodities in its exchange.*² Briefly, value is power of exchange. You can exchange a rupee coin for pens or pencils or fruits ; and all these can be exchanged for money. They all possess value. But sun's rays cannot be exchanged for anything since they are plentiful and free. As such, they do not have any value.

Value of an article measured by the articles which can be had in exchange for it. For instance, if one *tola* of gold exchanges for 50 *tolas* of silver, gold is 50 times as *valuable* as silver, or the value of silver is 1/50th of that of gold. Value expresses the relationship between two commodities, and depends, like utility, upon external circumstances. The value of an article is not determined by its intrinsic characteristics.

An article possessing utility may or may not possess value. For instance, sun's rays, moonshine and rain water possess immense utility but they are so abundant and free that nobody has to pay

²Value of a thing simply means the quantity of some other thing for which it is exchanged. Thus value is a relative term, and implies that one thing in compared to another ; if there were one thing in the world, the idea of value could not exist because no exchange could be possible—Moreland, *Op. Cit.*, pp. 15-16.

anything for them. As such, they have no value. But no article can have value unless it has utility; for nobody will like to pay anything in exchange for a commodity which cannot satisfy any of his wants and is, therefore, absolutely useless.³

Price

We have defined value as the capacity of a commodity to command other commodities in its exchange. The practice of exchanging one article for another article is known as *barter*, which has now become almost a thing of the past. Today most of the articles are exchanged for money. *The amount of money for which an article exchanges is known as its price.* In other words, value expressed in terms of money is known as price. As Moreland observes 'Price is simply a short way of expressing the value of a thing in terms of money : to say 'the price of *ghee* is one seer per rupee,' is precisely the same as to say 'the value of one seer of *ghee* is one rupee.'⁴

§ 2. GOODS

Meaning

If you just look around you, you will find yourself surrounded with a large number of things which satisfy your some desire or the other. The chair on which you sit, the table on which you keep your books, the shoes that you wear, the cigarette that you smoke and indeed even the sunshine, beautiful scenes, and pleasant evenings that you enjoy—all satisfy your needs or desires. All these things, material or non-material which satisfy the desires of human beings are called '*Goods*.'

In everyday life, the term *goods* is used in the sense of *material possessions* of a man. But the word is also sometimes used in a broader sense as when we say it is a great good to a man to be able to find recreation in reading or music after his day's hard work is

³*Value-in use and Value-in-exchange.* Some economists use the word 'value' in a slightly different sense. According to them value is divisible into (1) value-in-use and (2) value-in-exchange. Value-in-use is said to convey the same sense which utility does; in other words, it means the capacity of a commodity to satisfy some human want. Value-in-exchange, on the other hand, is said to convey the sense which the term value does in the above classification; in other words, it means the capacity of a commodity to command other commodities in its exchange.

The use of the term value-in-use and value-in-exchange has been largely given up by modern economists. They use the term *utility* and *value* respectively instead. Students should, therefore, remember that when the word value is used without any addition to it, it signifies *value-in-exchange*.

"The word *value*," Adam Smith wrote, "has two different meanings, and sometimes expresses the utility of some particular object and sometimes the power of purchasing other goods which the possession of that object conveys." But, says Marshall, experience has shown that it is not well to use the word in the former sense. See Marshall, *Economics of Industry*, p. 39.

⁴Moreland, *Op. Cit.*, p. 16.

done. It is in this latter, the broader sense, that economists use the term *goods*.

Marshall defines *goods* as all those things that satisfy human wants. In other words, anything possessing utility is a 'good.' Goods include not only material and tangible things like books, pencils, food and buildings; but also non-material and intangible things like love, affection and friendship.⁵

"Goods," therefore, is a wide term. Their essential nature can be made clearer by studying their various classes. Goods can be classified (i) according to their material or non-material nature, (ii) according to their transferability or non-transferability and (iii) according to their being free or appropriated.

Material and Non-Material Goods

Goods may be *material* or *non-material* (i.e., personal). *Material goods* consist of useful material things and of all rights to hold or use, or derive benefits from material things. They include physical gifts of Nature, land and water, air and climate; the products of agriculture, mining, fishing and manufacture; buildings, machinery and implements; mortgages and other bonds; shares in companies, patent rights and copyrights. Material goods are all external and can be transferred from person to person.

Non-material or personal goods are those intangible goods which have reference to a particular *person*. They may be (i) internal or (ii) external. Personal qualities and faculties of a man such as business ability, professional skill or the faculty of deriving recreation from reading and music, all these lie within himself and are called internal. The second class of non-material goods are called external because they consist of relation which are with other people beneficial to him. The chief instances of such relations beneficial to their owner are to be found in the goodwill and business connection of traders and professional men.⁶

Transferable and Non-transferable Goods

Another point of view from which goods can be classified is their transferable or non-transferable character. Transferable goods are those goods whose ownership can be transferred or changed. Books, pencils, buildings, good-will and the numerous other commodities of trade can be sold and belong to this class. Transferable things are not necessarily transportable; for instance, a house is transferable but not transportable. There are, however certain desirable

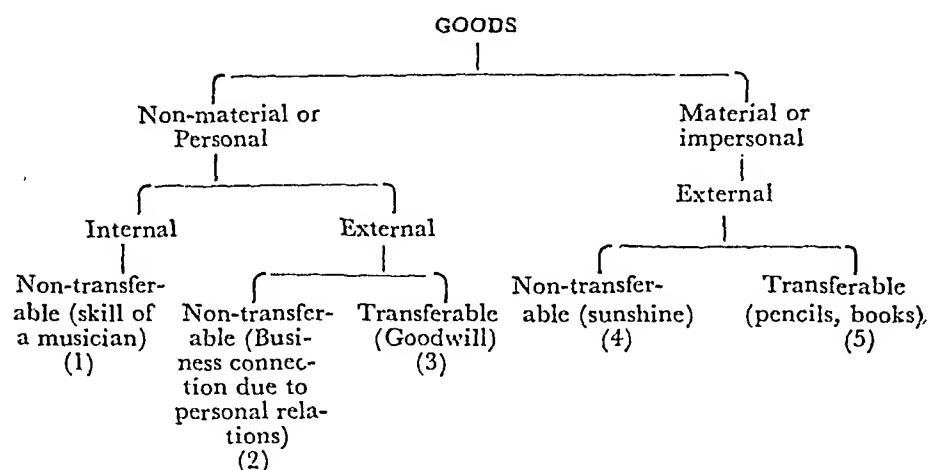
⁵Prof. Pierson observes "whether we can regard things as representing goods for us or not depends not only upon their own qualities, but also upon the extent of our knowledge, the state of civilisation to which we have attained, the climate in which we live, our trades or occupations, the peculiarities of our tastes and even upon our age or the ages those for whom we have to provide.—Pierson, *Op. Cit.*, p. 47.

⁶Marshall, *Principles of Economics*, pp. 54-55.

things which cannot be so transferred. Among the non-transferable goods are to be included a person's qualities and faculties for action and enjoyment (*i. e.*, his internal goods); also such art of business connections as depends upon personal trust in him and cannot be transferred; also the advantages of climate, light, air, etc.

Marshall's Classification of Goods

The classification of goods from the point of view of material and non-material nature and their transferable and non-transferable character may be conveniently combined into one. Marshall has given the following classification from this point of view :



(It should be noted that material goods are always external; internal personal goods are absolutely non-transferable.)

Consumption and Production Goods

Goods which are consumed for the direct satisfaction of human wants are called consumption goods. The food we eat and the clothes we wear, the books we read and the house we live in, are all consumption goods. The goods which are used for further production of wealth are known as production goods. They produce things which may be used for consumption later; thus they satisfy human wants indirectly. The seeds sown in the field and the raw materials used in a factory are the examples of production goods.⁷

⁷Goods may be divided into (1) those which are wanted for themselves and so yield utility directly and (2) those which are not wanted for themselves and so yield utility only indirectly. Of the first class are clothes, furniture, food, and so forth. Of the second class are machines, factories and all instrumental goods as they may be called. The goods of the second class (indirect goods) derive their utility from the utility of the goods of the first class (direct goods) which they aid us in procuring—Chapman, *Elements of Economics*, p. 5.

Free (or Unappropriated) and Economic (or Appropriated) Goods

Some goods are so plentiful that they can be obtained without any payment ; that is, they are *free*. Water, sunshine, air and heat are some of the examples. Free goods are not the result of human effort or sacrifice. Nature provides them in plenty for the use of human beings. That is why they are also called 'gratuitous goods' or 'natural goods.' Free goods are unappropriated in the sense that they are not the private property of (or they do not belong to) any particular individual or individuals. Such goods have utility but not value.

There are however, other goods which are limited in supply and which can be obtained only on payment. Books, pencils, houses, clothes and cycles are all economic goods. All the goods that are brought and sold come under this class. They are the results of human effort or sacrifice and are not the free gifts of Nature. Economic goods are appropriated goods in the sense that they belong to certain individuals. Such goods possess utility as well as value. Economics is concerned with economic goods and not with free goods.

The land in its original state was a free gift of Nature. But in old and thickly populated countries of today, it has ceased to be a free good. Wood is still free in some Brazilian forests. The fish of the sea are generally free though some sea fisheries are jealously guarded for the exclusive use of the members of a particular nation. But wheat grown on free land and fish that have been acquired from free fisheries are not free, for they have been acquired by labour and are consequently sold for money.

§ 3. WEALTH

Meaning

*Wealth may be briefly defined as consisting of all the goods that have value.*⁸ Since such goods are known as economic goods, 'wealth' and 'economic goods' have the same meaning. All the commodities which are bought and sold are wealth ; those articles which are not bought and sold are definitely excluded from the category of wealth, though they might possess immense utility. Air, light and heat have considerable utility ; but since they have no value and are not bought and sold; they are not wealth.⁹ Wealth consists of all those articles which are exchangeable.

⁸If an article possesses only utility, it is called a good. If it also possesses value, it is called *economic good* or *wealth*.

⁹The term 'wealth' is made to mean different things by different economists. For an interesting account see J. K. Mehta, *Groundwork of Economics*, Ch. 1.

Characteristics of wealth

An article can have value and be called wealth only if it possesses three principal attributes, namely, utility, appropriability and scarcity.

(1) *Utility*. An article can have value only if it is capable of satisfying some human want, *i. e.*, if it has utility. If a commodity cannot satisfy any want whatsoever of an individual, he will not care to spend money for acquiring it. In other words, it will have no value. Without utility, no article can become wealth.

(2) *Appropriability or Transferability*. In order to be classed as wealth an article must be appropriable that is, it must be capable of being made the property of somebody. That nobody will spend money or do some sacrifice for the acquisition of an object which he cannot call his own, is simple commonsense. Appropriability, as such, is an essential attribute of wealth. It implies transferability. Only transferable goods can have value and can become wealth. No man will care to pay a price for the moon, sun and stars since they cannot be transferred to him. Things like air and sunshine possess great utility and yet are not counted as wealth. They fail in the second point of definition: they are supplied freely by nature to each and all and are not capable of being appropriated and exchanged.*

(3) *Scarcity*. No article can have value unless it is limited in quantity, *i. e.*, it is scarce. Scarcity signifies the excess of demand over supply. If a thing is so plentiful that its supply exceeds the demand for it, it can be obtained without any payment: it will have no value and will not be classed as wealth.

*To sum up, an article can have value only if it has utility, is scarce and can be appropriated. Because wealth consists of those goods which have value, therefore utility, scarcity and appropriability may well be called attributes of wealth.*¹⁰

Marshall's Conception of wealth

According to Marshall, wealth consists of two classes of goods:

(1) Those *material goods* to which a person has private rights of property and which are, therefore, transferable and exchangeable. These, it will be remembered, will include not only such things as

*Hall, *Elements of Political Economy*, p. 3.

¹⁰Wealth should be distinguished from *Capital* and *Income*. Capital is that part of wealth which is used for further production. Income is periodical flow from capital. "The capital of an individual or a community is an amount of wealth in existence at a particular moment. The income of an individual or a community is an amount of wealth obtained during a specified period. Capital is being constantly converted into income and income into capital, but capital under all times and conditions is measured as, a quantity while income is more properly measured as a rate. Capital is a static conception independent of time; income is a dynamic conception involving time element."

land and houses, furniture and machinery, but also shares in companies, debentures, etc.

(2) Those *immaterial goods* which belong to him, are external to him and serve directly as the means of enabling him to acquire material goods. Thus it excludes all personal qualities and faculties even those which enable him to earn his living; because they are internal. Wealth is thus used in the sense of economic goods.

If you turn to the chart given on page 63 above, you will find that only third and fifth classes of goods come under *wealth*.

Ruskin's View

Ruskin was a valiant critic of the material nature of Economics as was the case in his times. The material definition of wealth, namely, that it consists of all the desirable things that have value, did not agree with him. According to him, "There is no wealth but life: life including all its powers of love, of joy and admiration." Happiness, capacity to love and ability to admire things of art, were in his opinion, real wealth.

Let us examine Ruskin's contention. The qualities mentioned by him are certainly desirable; hence they are *goods*. But since they have no value though they have a high degree of utility, they cannot be regarded as *economic goods* or *wealth*. As such, the use of the word wealth in the above quotation is wrong.

What Ruskin really meant was that economists should change their definition of wealth so as to include in it the qualities mentioned by him. But we cannot do this since these qualities cannot be measured by the measuring-rod of economists; namely, money; and what cannot be thus measured, has per force to be excluded from our scope.

However, the nature of Economics has much changed since Ruskin wrote. Welfare, normative concepts, ethical problems and other like topics are now discussed by economists. Had Ruskin been alive today, he would not have probably made this criticism, at least not so bitterly.

Classification of Wealth

Wealth may be classified into (i) personal wealth, (ii) collective wealth, (iii) national wealth and (iv) international wealth.

(i) *Personal or Private Wealth*. Personal wealth is the wealth which belongs to a certain person. The above conception of wealth as given by Marshall is that of personal wealth; it includes those economic goods which belong to him and which he can sell. Associations of persons, companies and clubs, etc., are usually counted as individuals and the wealth belonging to them as personal wealth.¹¹

¹¹The debts which an individual owes to others may be regarded as his *negative wealth* and they must be subtracted from his gross possessions to arrive at his true *net wealth*.

(ii) *Collective or Communal Wealth.* The wealth owned by Municipal Boards or Provincial and Central Governments is known as collective or communal or social wealth. Public, libraries, public parks, roads and harbours are good examples of collective wealth. Municipal and Government bodies represent the *community* and the wealth owned by them may be regarded as wealth collectively owned by the citizens ; hence the name *Communal or Collective wealth*.

(iii) *National Wealth.* The term *national wealth* is still wider and includes the following items ;

- (1) *Personal Wealth* of all the members of the nation.
- (2) *Collective wealth* of the nation.
- (3) *Natural advantages* possessed by a country, climate, geographical position and mineral resources ; and
- (4) *Non-material elements* like characteristics of the members of the nation, and goodwill and reputation of the country.

Students may raise an objection : How can natural advantages and non-material elements (in 3 and 4 above) be regarded as wealth, since they cannot be bought and sold ? This objection is plausible, but it is met by suggesting that the term wealth is used here in a broad sense.

(iv) *Cosmopolitan or International Wealth.* Cosmopolitan wealth includes the wealth belonging to all the nations of the world plus wealth shared by all of them in common, as for example, oceans, scientific knowledge, mechanical inventions, etc.

The following diagram illustrates the above classification of wealth :

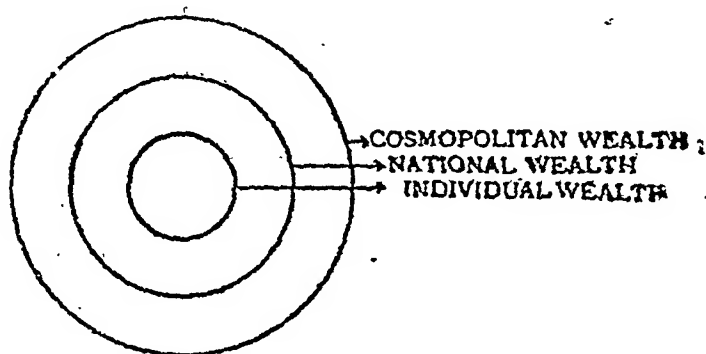


Fig. 7. Explaining the classification of wealth.

(Note : National wealth includes individual wealth and collective wealth.)

Is Personal Skill Wealth ?

Personal skill should or should not be considered as wealth, is a question which very often confuses students. Let us take the case

of a surgeon's skill and decide whether it should be counted as the wealth of the surgeon or not. Now, this skill is *not transferable*, although the service which it can render is, of course, transferable. Hence this *personal skill is not wealth*, though the service it gives rise to is wealth. Everybody attaches great value to sunshine; but still sunshine does not possess value in an economic sense—it cannot be bought and sold, and consequently it is not called wealth. The same reasoning applies to personal skill.

But the surgeon himself attaches high value to it, and may, in fact, guard against its loss by insuring his hands or eye-sight. Such skill is, therefore, regarded by some economists as *personal wealth*. But strictly speaking this reasoning is fallacious.

Similar reasoning applies to the skill of an engineer, the melodious voice of a songstress, the strength of a wrestler and the nimble fingers of an embroidery worker.*

EST QUESTIONS

1. What do you mean by *Utility*? Discuss fully.
2. Define value and price. Distinguish between value-in-use and value-in-exchange.
3. What do you mean by goods? What is the meaning of 'economic goods'? Give Marshall's classification of goods.
4. Give the various classes of goods.
5. What do you mean by wealth. What are its characteristics?
6. Give a classification of wealth.
7. Are slaves wealth? Will the abolition of slavery prevalent in a country diminish wealth?
8. Most goods after being sold to consumers can be resold only at a lower price: they are "second hand." Does the fall in selling value indicate a decline in the wealth of the community?

EXAMINATION QUESTIONS

U. P. Inter Arts

1. Distinguish between individual and social wealth and state what do you mean by 'economic goods.' (U. P., 1925).

U. P. Int. Com.

2. What is meant by 'wealth' in Economics? Point out its chief characteristics and discuss if the following are wealth:—

- (a) Health
- (b) Poems of Kalidas
- (c) Taj Mahal
- (d) Goodwill and
- (e) Copy-right of a book. (1951).

*"The term 'Personal wealth' has been applied to distinguish this but although clearly a point to be noted, yet the use of the word wealth without an adjective to qualify it is generally held to include only those things external to the individual and to exclude his personal energies and abilities." Hall, *Elements of Political Economy*.

U. P. Inter Com.

3. Distinguish between Social wealth, National wealth, International wealth and Personal wealth. Give three examples of each. (U. P. Com., 1948).

4. What do you mean by wealth? What are its characteristics? Explain. (U. P. Com., 1947).

Rajputana Inter. Arts.

5. Define wealth. Discuss whether or not the following come under your definition : (a) natural resources of a country, (b) sunshine, (c) a musical voice, (d) B. A. degree, (e) copyright. Give reasons. (Rajputana, 1938).

6. Explain clearly the meaning which is attached to the word 'Wealth' in Economics. If you were asked to calculate the wealth of India, what items would you take into account in your computation? (Rajputana, 1931).

Raj Int. Com.

7. Write note on 'Wealth.' (1947).

Rajputana I. Com. Exam.

8. Define wealth, and fully explain the notion of wealth as it is understood in Economics. (1941).

Patna Int. Arts.

9. Define 'Goods', 'wealth' and 'capital.' What are the features which distinguish them from each other. (1948S.).

10. Distinguish between value-in-use and value-in-exchange. Explain why no price is paid for water or air. (1948 Supp.)

11. Write note on 'wealth.' (1949 Supp.)

12. Classify goods. Distinguish between capital goods and consumption goods. Give examples. (1948 S.)

13. Distinguish 'Capital' goods and 'Consumption' goods. Will you classify the following :—

(a) Motor Car of a physician. (b) Bicycle of your college. (c) Sugarcane in the hands of a village lad. (d) Sugarcane in the godown of a sugar factory. (1947).

Sagar Int. Arts.

14. Write note on the term 'Wealth.' (1948).

Nagpur Int. Com.

15. What are goods? What goods are 'wealth'? Can a thing be wealth to one person and not another? Give examples (1947).

Nagpur Int. Arts.

16. (a) Explain the term 'value.' What commodities possess exchange value. (b) Explain the characteristics of wealth. (1948).

17. What are goods? What goods are wealth? Can a thing be wealth to one person and not to another. Give examples. (1947).

Bombay Int. Com.

18. Write note on utility and value. (1949).

Poona Int. Com.

19. Distinguish between :—

(i) Wealth and Welfare ; (ii) Free goods and Economic goods ; (iii) Value and Utility. (1949).

Andhra Int. Arts.

20. What is wealth and examine its characteristics ? What is meant by statement that wealth consists of goods that have exchange value. (1950).

21. Distinguish between Individual and social wealth ; giving illustrations. How will you treat private and public debts in these groups ? (1944).
Other Examination Questions

22. Define wealth and attempt its classification from different points of view. (Punjab, 1930).

23. "There is no wealth but life. Life including all its powers of love, of joy and of admiration.—Ruskin.

Do you agree with Ruskin's definition of Wealth ? Distinguish between Wealth, Capital and Income. (Delhi, 1933).

24. "Utility and scarcity, and these alone are necessary to give things value." Comment on this statement. (Delhi, 1929).

25. Are the following wealth :—

(a) Good health (b) A picture which nobody appreciates (c) The services of a doctor who fails to cure the patient ?

Give reasons for your answer in each case. (Bombay Com., 1939).

Consumption

Book II

Chapters 10-22

CHAPTER 10

MEANING AND IMPORTANCE OF CONSUMPTION

The consumption of wealth is, in its only important form a phenomenon which cannot be separated from the production of wealth.—*Cherbuliez*.

§ 1. MEANING OF CONSUMPTION

Human beings feel numerous wants which press for satisfaction with varying intensity. Some wants are primary and, therefore, very urgent, like the want for food, clothes and shelter while there are other wants which are not so urgent, as for example, the want for joy-rides and costly dresses. Whatever the nature of wants, they come up for satisfaction, sooner or later. Men satisfy these wants by the use of wealth. When they are hungry, they appease their hunger by taking food ; when thirsty, they quench their thirst by drinking water or orange syrup. *The application of wealth for the direct satisfaction of wants is known as consumption.*

Wealth, it may be emphasised, may be applied for the satisfaction of wants directly or indirectly. If you are thirsty and drink a glass of water, or if you are hungry and take a few biscuits, you satisfy your wants directly ; the application of wealth in these cases will be called *consumption*. But when you sow seeds in the field and burn coal in the factory, wealth is used for the satisfaction of wants only ultimately ; immediately it is applied for the production of agricultural stuffs and manufactured articles. In such cases, then, the commodities used lead to the satisfaction of wants only *indirectly*. Such indirect use of wealth for the satisfaction of wants is known as *production* and not consumption.

A pertinent question may be asked at this stage ; What happens of an article when it is consumed ? When you eat a biscuit, what happens of it ? A layman may probably say that it is *destroyed*. But scientists tell us that matter is indestructible ; hence the above answer is not correct. When we eat a biscuit, it is not destroyed but is simply converted into blood and foreign matter—it is disarranged and loses its utility as a biscuit. It is the utility of the biscuit which is destroyed and not the biscuit itself. We can, therefore, define consumption as *the destruction of utilities for the direct satisfaction*

of human wants. (The reader must not make the wrong statement that consumption means the destruction of matter ; it refers to the destruction of utility.)

Marshall regards consumption as *negative production*. Just as the production of material products, says he, is really nothing more than a rearrangement of matter which gives it new utilities ; so the consumption of them is nothing more than a disarrangement of matter, which lessens or destroys its utilities.¹

From the above definition it is clear that the scope of the term "consumption" is fairly wide. The actual eating of a thing is of course, consumption ; but the wearing of clothes, the riding of a horse, the reading of books, the writing on a piece of paper, the ringing of a bell, are also acts of consumption, since utility is destroyed or lessened in each of these cases. Very often when a man is said to consume things he does nothing more than to hold them for his use, while, as Senior says, they are destroyed by those numerous gradual agents which we call collectively *time*.² Pictures and curtains may thus be consumed by the passage or effluxion of time, even without being touched by their consumers.

Other Meanings of the Term 'Consumption'

The word "consumption" is a word of daily usage and conveys several senses. In ordinary talk, "*consumption*" is sometimes used in the narrow sense of eating ; and at others, in the wider sense of destruction. Again, in the science of medicine Consumption is another name for tuberculosis. The sense in which this term is used in Economics is easily distinguishable from its foregoing consumptions. Consumption, in the economic sense, is much wider than mere eating. It also differs from destruction in a basic sense. When an article is 'destroyed' it does not satisfy a want ; while 'consumption' always involves the satisfaction of some want or the other. If a coat is 'destroyed' by fire, it does not satisfy human want during the course of its destruction ; but if it is 'consumed' by constant wearing, it satisfies a vital human want for clothing. Moreover, the expression 'destruction of goods' is open to objection inasmuch as matter cannot be destroyed, but the term 'consumption' has no such drawback. Finally, consumption in economic sense has nothing to do with tuberculosis.

Consumption as a Division of Economics

We have explained above the act of consumption in the economic sense. Consumption is also a department of Economics, and should be distinguished from the act of consumption. In the

¹Men do not consume matter, but only utilize ; that is to say, the amount of matter present in the world is not diminished by the act of consumption, but some of it is no longer capable of satisfying a particular want. Moreland, *An Introduction to Economics*, p. 20.

²Marshall, *Principles of Economics*.

department of Economics known as Consumption, we study wants, their origin and satisfaction, the laws governing their satisfaction, etc. The department of Consumption centres round the act of consumption.

Kinds of Consumption

(2) *Slow and Quick Consumption.* The act of consumption may be slow or quick. When you drink a glass of water, the act of consumption comes to a speedy end, and is *quick*. But when you purchase a new shirt, you wear it for months together before its utility is completely destroyed. The extraction of satisfaction out of a shirt is diffused over a long time. The act of consumption in this case is continued and *slow*.

Articles subject to quick consumption are known as *perishable goods*. Water, mangoes, apples, fish and such other articles are perishable goods. Their utility is destroyed in the very first act of their consumption. The articles subject to slow consumptions are known as *durable goods*. The house, the typewriting machine, the book, the electric bulb, are all durable goods. They yield repeated satisfaction.

(2) *Productive and Final Consumption.* Some older economists divided consumption into productive consumption and final consumption. The application of goods for the creation of utilities (*i. e.*, for production) is called by them *productive consumption*. Productive consumption in this sense leads to indirect satisfaction of wants. The application of wealth for the direct satisfaction of wants is called by them *final consumption*. If some bricks are used in the construction of a factory meant for producing certain articles, their consumption will be called productive consumption. But if they are used in the construction of a residential house, their consumption will be final consumption.

Modern economists have, however, given up the use of these two terms. They define the term consumption in the sense in which we have defined it, namely, the application of wealth for the direct satisfaction of wants. The so-called productive consumption, *i. e.*, the application of wealth for indirect satisfaction of wants, is in their opinion, not consumption at all; strictly speaking it is production. Consumption is a term which is now restricted to the so-called 'final consumption'.³

§ 2. IMPORTANCE OF CONSUMPTION

Consumption is a New Subject

Consumption as a separate subject was born only a few decades ago. Early economists did not study consumption and rarely made

³There is also what Riedel calls 'immaterial consumption' as when a utility disappears, either because the want itself to which it ministers disappears or because the views have changed as to means to be employed towards its satisfaction.

at a department of Economics. Ricardo, Mill and other old economists centred their attention on production which, in their opinion, was the most important department of Economics, and neglected consumption which they thought was the concern of private individuals.⁴ It was left to Marshall to detect this mistake of omission on the part of his predecessors and to lay emphasis on the importance and utility of the study of consumption, so much so that it is now regarded as the key-note of Economics.

Earlier economists neglected the study of consumption not merely because they did not want to write anything on it but because they could not do so for two very pertinent reasons. Firstly their study of wants and the allied topics was not thorough and they could not, therefore, make a full study of consumption. Secondly, the relationship between the consumption of wealth and welfare was not much appreciated in the days gone by, and under such circumstances consumption could not come to the forefront. As time rolled on, the scientific study of such psychological phenomena as wants and satisfaction ripened, and the relationship of welfare with consumption became prominent, while the growth of humanitarian spirit led to a comprehensive and penetrating inquiry into the causes of welfare. The result was that consumption began to be studied. And today it is considered to be the most important department of economics. Indeed some economists seriously think that consumption has been given a disproportionately large importance.

Importance of Consumption in Economics

Consumption now occupies a very important place in the science of Economics. *It is, in fact, the beginning and end of Economics.* Human beings undertake economic activities merely because they have wants which call for satisfaction. It is the existence of wants and need of their satisfaction which lead to economic efforts. Human wants constitute the mainspring which sets all the economic forces to work. Consumption is, as such, the starting point in Economics. Again, all economic activities are undergone with one ultimate purpose, namely, the satisfaction of wants. The production, exchange and distribution of wealth have only this one final aim. Consumption may, as such, be also considered to be the end of Economics. It is that significant point from which the circle of economic activities makes a start and at which it reaches completeness. Consumption is, therefore, rightly regarded as the goal of economic activities as well as their starting-point.

Again, the national welfare and prosperity are very much dependent on the nature of the consumption of the inhabitants. Other

⁴I cannot but deem it a subject of much regret that the fascination of the mathematical treatment of economic questions, and the ambition to make Political Economy an exact science, should have led to the practical excision of the whole department of Consumption—Walker, *Political Economy*.

things remaining the same, the more voluminous the consumption, the greater is the prosperity. But the composition of the articles consumed is a very important matter. If the articles are wisely selected and are healthful, progress of the individuals and the country is certain. But in the absence of wise expenditure, no amount of richness can bring the real happiness and progress. It is easy to earn money than to spend it properly. The study of consumption is, as such, pregnant with great possibilities.

Production vs. Consumption

Since consumption is the beginning of Economics, it is described before production in almost all the modern books on Economics. Some old economists gave the first place to Production ; because, they said, no consumption is possible unless wealth is produced : and production should, therefore, be treated first. But this is a weak argument and can be met by a counter-argument that wealth is produced for consumption and no wealth will be produced if it will not be consumed. Hence consumption should be treated prior to production. The fact remains that consumption is the beginning and end of Economics and should, therefore, have the priority of treatment.

Practical Advantages of the Study of Consumption

Consumption is important not only in theory but also in practice, which can best be illustrated by a few examples.

Its Importance to Statesmen. Statesmen, who are engaged in practical problems, very well realize the importance of consumption. Efficiency in the production, exchange and distribution of wealth will not achieve anything unless the consumption of wealth is such that the efficiency of labourers can be maintained. Again, the statesmen have to see that citizens spend their money wisely. Prosperity depends not so much upon opulence as upon its proper use. The proper expenditure of money is more difficult than its earning. A man may produce considerable wealth and may be very rich ; but if he does not know the proper use of wealth, his richness is of no use. Suppose a man earns Rs. 100 per month and spends it very wisely and proportionately on the various heads of expenditure ; while there is another man who earns Rs. 200 per month, but who is addicted to drinking, cinema-going and such other habits, with the result that a proportionately large share of his income is spent on harmful objects and very little is obviously left to take care of his necessary requirements. On comparing the lives of both these men, we unmistakably find that the life of the first man is better than that of the second because the latter does not know the secret of wise expenditure. By his habits, a bad consumer may injure not only himself but also others since bad habits are very infectious. Considerations such as these have unflinching bearing on the social life of the State. Governments have now become alive to the fact that if they want to make their subjects

happy and flourishing they must see that their expenditure is wise. The policy of prohibition of using intoxicating liquors and drugs and the entertainment tax on cinema shows and other like actions; have this end in view. Indeed, one will be half a statesman if he neglects the consumption side of the social life of his country.

Its Importance to Businessmen. The practical utility of the study of consumption can be proved by showing its importance to businessmen who are practical through and through. Businessmen frequently anticipate demand; they have to estimate the extent of future consumption on the basis of the present trends of fashion and the past records. If their estimate comes out correct, their profits are large. But, if unluckily they somehow miscalculate demand and indulge in "over-production", *i. e.*, production more than the demand, goods do not sell and much loss is incurred. A careful study of consumption is, thus, the foundation-stone of business success.

Its Importance to Householders. To the householder, in particular, the study of consumption is very profitable. This study teaches him the principles by following which he can achieve maximum benefit out of his expenditure. The knowledge of the law of equi-marginal utility and of family budgets enables him to spend money wisely and achieve a gain in the satisfaction of his wants.

TEST QUESTIONS

1. Explain the meaning of consumption as clearly as possible.
2. What do you understand by slow and quick consumption and productive and final consumption? Do modern economists recognize the concept of "productive consumption"? Discuss fully.
3. Is Consumption an old branch of economics? What is its importance in Economics?
4. "Consumption is the beginning and end of Economics". Discuss.
5. Show the practical importance of the study of consumption.
6. Are the following acts of consumption :
 - (a) The flying of a kite ; (b) the looking at a picture ; (c) the eating of a mango ; (d) the painting of a landscape ; and (e) the polishing of shoes ?

EXAMINATION QUESTIONS

U. P., I. A.

1. What exactly do you mean by 'consumption'? What is the relation between consumption and production? (I. A., 1941, 1927).
2. Clearly explain what do you understand by the term 'consumption' and give examples of the different types of consumption. Consumption is regarded by some as the goal of economic activity and by others as a means of restoring energy. Which view in your opinion is correct? Give reasons. (I. A., 1932).
3. Define clearly the meaning of the term Consumption as used in Economics. What improvements can you suggest in the mode of consumption of an ordinary Indian peasant in your own part of the country. (I. A., 1931).

U. P. I. Com.

4. What do you mean by consumption? What is the relation between consumption and production? (1946).

U. P. Int. Ag.

5. Explain consumption is both the beginning as well as the end of Economics. (1948).

Rajputana Inter. Arts.

6. 'Satisfaction is the end of economic activities.' Explain this with reference to the importance of consumption as a subject of study in Economics. (I. A., 1931)

Nagpur Inter. Arts.

7. Define consumption of wealth and discuss its relation with production and distribution. (1949)

8. 'Production is the creation of utilities, consumption involves the destruction of utility.' Explain. (1947)

Nagpur Inter. Com.

9. 'Production is the creation of utilities. Consumption involves the destruction of utility.' Explain. (1947)

Sagar Inter. Arts.

10. "The existence of human want is the starting point of all economic activity." Discuss. (1950)

Other Examining Bodies

11. Is it correct to say that 'production' means production of matter and 'consumption' means consumption of matter? If your answer is in the negative, give your own definitions of production and consumption which you think would be correct. (Punjab, I. A., 1939)

12. "Consumption has to do with spending and not with saving." Explain and show what meaning is attached to the term *Consumption* in Economics. (Delhi, I. A., 1940).

happy and flourishing they must see that their expenditure is wise. The policy of prohibition of using intoxicating liquors and drugs and the entertainment tax on cinema shows and other like actions; have this end in view. Indeed, one will be half a statesman if he neglects the consumption side of the social life of his country.

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TEST QUESTIONS

1. Explain the meaning of consumption as clearly as possible.
2. What do you understand by slow and quick consumption and productive and final consumption? Do modern economists recognize the concept of "productive consumption"? Discuss fully.
3. Is Consumption an old branch of economics? What is its importance in Economics?
4. "Consumption is the beginning and end of Economics". Discuss.
5. Show the practical importance of the study of consumption.
6. Are the following acts of consumption :
(a) The flying of a kite ; (b) the looking at a picture ; (c) the eating of a mango ; (d) the painting of a landscape ; and (e) the polishing of shoes ?

EXAMINATION QUESTIONS

U. P., I. A.

1. What exactly do you mean by 'consumption'? What is the relation between consumption and production? (I. A., 1941, 1927).

2. Clearly explain what do you understand by the term 'consumption' and give examples of the different types of consumption. Consumption is regarded by some as the goal of economic activity and by others as a means of restoring energy. Which view in your opinion is correct? Give reasons. (I. A., 1932).

3. Define clearly the meaning of the term Consumption as used in Economics. What improvements can you suggest in the mode of consumption of an ordinary Indian peasant in your own part of the country. (I. A., 1931).

U. P., I. Com.

4. What do you mean by consumption? What is the relation between consumption and production? (1946).

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5. Explain consumption is both the beginning as well as the end of Economics. (1948).

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6. 'Satisfaction is the end of economic activities.' Explain this with reference to the importance of consumption as a subject of study in Economics. (I. A., 1931)

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7. Define consumption of wealth and discuss its relation with production and distribution. (1949)

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9. 'Production is the creation of utilities. Consumption involves the destruction of utility.' Explain. (1947)

Sagar Inter. Arts.

10. "The existence of human want is the starting point of all economic activity." Discuss. (1950)

Other Examining Bodies

11. Is it correct to say that 'production' means production of matter and 'consumption' means consumption of matter? If your answer is in the negative, give your own definitions of production and consumption which you think would be correct. (Punjab, I. A., 1939)

12. "Consumption has to do with spending and not with saving." Explain and show what meaning is attached to the term *Consumption* in Economics. (Delhi, I. A., 1940).

CHAPTER 11

WANTS : THEIR DETERMINATION AND CHARACTERISTICS

For at least half his expenditure an ordinary individual does not know what he wants and out of the other half, for at least a half he does not get what he wants. It is only by becoming the creature of habit and the victim of mimicry or stimulation that he accomplishes very badly a task which is really more difficult than that of earning his income.—*Dibble*.

§ 1. MEANING OF WANT

What is a "Want"?

"*Want*" is a word with which the reader is very well familiar. If he is asked to give the equivalent word for 'want', it will most probably be 'desire'. In the ordinary language, 'want' and 'desire' are used in the same sense; but economists draw a fine distinction between them. The word 'desire' is used by them in the ordinary sense, namely, a conscious longing for a thing. But the term 'want' has special significance. *Want is that desire which is backed by the ability and willingness to satisfy it.* Suppose a man desires to have a book; he also possesses the money to purchase it; while he is willing to exchange the money for the book. In such a case, the desire is *effective* and will be called a 'want'. But suppose a poor man has the desire for a motor car, but he has no money to buy it. His desire is obviously *ineffective*, i.e., incapable of satisfaction, and cannot be called a *want*. Again, take the case of a miser who will be glad to see his little daughter wearing gold ornaments; he has enough money to purchase ornaments; but he may not like to part with money because of his greediness. In this case again, his desire is *ineffective* and cannot be called a *want*.¹

To sum up, there are three essentials of a want; (1) a desire for an article; (2) the ability to satisfy it; in other words the possession of the means of its satisfaction; and (3) the willingness to spare the means for the purpose. When a desire is backed by ability and willingness to satisfy it, it is called '*effective desire*' or '*want*.' In other words, want is that effective desire, for a particular thing which expresses itself in the effort or sacrifice necessary to obtain it.²

Importance of Wants in Economics

The study of wants is of great importance in Economics. Wants are the seeds which give rise to the tree of economic efforts. It

¹Effective desire is also called *Demand*. Thus *wants* and *demand* come to have the same meaning. See in this connection, J. K. Mehta, *Groundwork of Economics*.

²See Penson, *Economics of Everyday Life*, p. 14.

is the feeling of certain wants that calls forth economic activities. That is the reason why production, exchange and distribution of wealth take place. When wants are satisfied, economic activities come to a natural conclusion. Wants, thus, constitute the point whence economic efforts begin and where they come to an end.

Wants are also important since they determine the standard of living of the people and their productive efficiency. A man whose wants are more and better satisfied than the other is more efficient, other things being equal. The number and variety of human wants normally satisfied constitute a good index of the material prosperity of a country.

§ 2. WANTS AND ECONOMIC ACTIVITIES

The Circle of Wants and Activities

Wants and economic activities are very closely related. We have already emphasised that wants lead to activities. Wants are the real motive force which set the entire economic mechanism into motion. The servant works because he has wants to satisfy; the shopkeeper maintains the shop so that he may earn money for the satisfaction of his wants; the lawyer argues cases, the teacher teaches students, the clerk works in office, the driver drives the car, with the same object, *viz.*, the satisfaction of certain wants which press for satisfaction. If men cease to have wants, the entire economic machinery will come to a stand-still. That wants lead to activities is a well-established fact which does not require much deliberation.

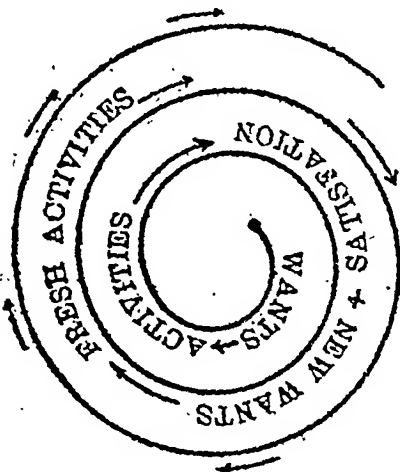


Fig. 8. Explaining the relation between wants and activities.

Just as wants lead to activities, similarly activities, while satisfying the wants which cause them, lead to the creation of fresh wants.

In this manner, wants give rise to activities; the latter satisfy the old wants but give rise to new wants; the latter again lead to new activities; and so on. The circle of increasing wants and increasing activities has an indefinite course to run. It has a starting-point but it has no end. Indeed it is this unending phenomenon of wants leading to activities and the activities leading to fresh want which has been the primary cause

of the modern civilization. For civilization consists in a multiplicity of wants and the ability to satisfy them.

Historical Illustration

During their initial abode on this planet men early felt certain wants, which, they found, must be satisfied for keeping themselves alive. For this purpose they made efforts. Wants thus led to activities.

These activities were meant to harness the forces of Nature in the production of wealth, in a primitive sense in the earlier days, but in a more imposing way later on. These activities could be carried on efficiently only with certain implements of tools. For instance, if men wanted to kill animals for food, they required sharp stone weapons or arrows. If they wanted to pluck fruits, they sometimes felt the need of some missiles or bamboo poles. They began to feel the want for these articles which aided them in their economic activities. In this way activities led to the creation of fresh wants.

There is another sense also in which economic activities led to the creation of new wants. As man obtained control over Nature, he could satisfy his old wants in a limited time and began to have leisure. To occupy the latter, he invented new wants, which called forth fresh activities. If the leisure was spent in festivities he felt wants for dainty dishes and other delicious things. If it was spent inventing improved and imposing dress, he required cloth and other articles. Thus activities led to the creation of new wants. It is at this stage that the love of display and distinction springs up in human heart.³

Speaking broadly, therefore, although it is man's wants in the earliest stage of his development that give rise to his activities, yet afterwards each new step upwards is to be regarded rather as the development of new activities giving rise to new wants than that of new wants giving rise to new activities.⁴

This is the way in which wants and activities act and react on one another in a never-ending fashion. And the circle of wants and activities, which is the life-blood of economic progress, never comes to an end.

§ 3. DETERMINATION OF WANTS

Factors Governing Wants

The nature and intensity of human wants depend upon several factors, the chief of which are physical, physiological, ethical, social and habitual or customary.

³Senior remarks, "Strong as is the desire for variety, it is weak compared with the desire for distinction: a feeling which if we consider its universality and its constancy that it affects all men and at all times, that it comes with us from the cradle and never leaves us till we go into the grave, may be pronounced to be the most powerful of human passions." This great half-truth, comments Marshall, is well illustrated by a comparison of the desire for choice and various foods with that for choice and various dresses—Marshall, *Economics of Industry*, pp. 56-57.

⁴Marshall, *Ibid.*

(1) *Physical Factors.* Physical factors determine the character and the extent of wants to a considerable degree. The people of a cold country like England have to use woollen clothes all the year round and also to take some intoxicants to keep them active, but in a warm country like India, we require woollen clothes only during the winter, and light cotton clothes during the summer, while intoxicants are not only unnecessary but actually harmful to the constitution.

(2) *Physiological Factors.* In order to keep ourselves physically fit we have to take a diet which may supply all the elements like proteins and vitamins which are necessary for health and vitality. If a man is thin, milk may probably be useful to him ; but it will be injurious to a fat man because it will make him fatter still.

(3) *Ethical Factors.* The ethical and religious view-point lends its colour to the wants of a person. The nature of ethical ideals of a man and the degree of importance he attaches to them, determine his wants to a fairly large degree. If a man believes in the simplicity of life as an important associate of spiritual development, his wants may be very few and simple. But if, on the other hand, he considers the satisfaction of a large number of wants as the mark of progress, his wants will be numerous and complex.

(4) *Social Factors.* The wants of a person are determined not only by physical, physiological and ethical considerations, but also by the stage of general progress of society. The society, for instance has set rules for the disposal of a dead body or for the performance of marriage. Members of the society instinctively respect such social rules and allow their wants to be moulded and fashioned by them almost unconsciously. The offer of *pan* and smoke to visitors, the burning of dead body among the Hindus and its burying by Muslims, and such other things are all set by social rules. The dictates of society are governed by the stage of progress attained by it. The social commandments of a primitive society are elementary and sometimes without reason ; the dictates of an advanced society are refined and are based on reason.

(5) *Economic Factors.* Wants are largely determined by one's richness or poverty. A poor man has few and simple wants. He may satisfy those wants which support life, but he rarely gets an opportunity of enjoying comfortable and luxurious articles. This is not the case with the rich who allow their wants to multiply freely, with the result that their wants are numerous and mostly of comfortable and luxurious nature. It is due to the poverty of an Indian that his wants are so few and to the richness of an American that his wants are so numerous.

(6) *Habits, Customs and Fashion.* Personal habits of a man and the prevailing fashion have a great determining influence on wants. It is a fact which students will verify from their own experience that a man who has done a thing in a particular way tends to follow the line of least resistance and goes on doing it in the same way ;

and the more often he repeats the same, the less disposed he becomes towards change.⁵ The influence of personal habits on one's wants can, therefore, be clearly realized. Again, it is also a fact borne out by experience that a man who has to do a thing for the first time tends to do it in the same way as he sees his neighbours doing it. Thus a man who lives entirely alone will develop habits or customs and all the ordinary actions of his life in his own ways, for instance, of preparing and taking food, of the cut of his clothings and of wearing them, etc. But as a rule man does not live alone and in ordinary life he follows the customs and habits of the people among whom he lives and has his being. Many of our habits are formed while we are still young. We do things in the way we see our relations and friends doing them. And as we grow in years and discretion, we acquire fresh habits from those with whom we generally come in contact. A student on entering college, tries to copy the way of living of some of his teachers and other students; a young man entering an office as a clerk does what the other clerks do; and the same thing is true in all occupations.

Wants of an Indian Labourer

A few illustrations may well be given at this stage. First let us take the wants of an Indian labourer. His wants are determined not so much by reason as by social factors and the habits, customs and fashion. The food that he takes is the one to which he is used from his birth. Any fundamental change in it is very displeasing to him. If he is a Bengali, he must have rice; if an upcountry man, he must have *chapattis*. So far as shelter is concerned, conditions are largely out of his control. He lives in dirty, insanitary, overcrowded and congested quarters. He cannot help it because of his poverty. Even where he can improve the conditions he fails to do them partly because he is habituated to that sort of living and partly because he does not want to lose the company of his old friends and acquaintances. His clothing is largely governed by habits and traditions. He very often wears the same types of clothes which his forefathers used to do. But the element of fashion makes its influence felt in this respect and a change in the type of clothes he wears is visible.

Wants of a College Student

Let us now examine the factors which determine the wants of a college student. Here the elements of fashion and habit play the most important role. When a student newly comes to the college, he takes to the use of fountain-pen, tooth paste and such other things, mainly because they are in fashion. Cinema-going may begin as a fashion, but it soon becomes a habit and cannot be easily got rid of. It is a matter of your observation that those of your friends who do not follow the current fashion and continue

the primitive way of living are called by such names as *Buddhu* and *Shikarpuri*; while those who are very particular about their dress and appearance are supposed to be showy, vain and dandies. It becomes almost obligatory to a newly-admitted college student to mould his dress, food and other walks of his life according to the current standard.

§ 4. CHARACTERISTICS OF WANTS AND THE LAWS BASED UPON THEM

Human wants are numerous and of different kinds. They differ from country to country and from place to place in the same country. Nevertheless, they possess certain common characteristics on which important laws of Economics are based. They are discussed below :

(1) *Wants in General are Unlimited.* Human wants multiply endlessly. As soon as one want is satisfied, another want begins to be felt. Man is thus spurred on to pursue an end which is ever vanishing before him. At present you may feel the want of a fountain-pen; but if you purchase it, you may next begin to feel the want of a hat or a book, of which you had little idea before. Take the case of a poor man who is starving. If he is given very coarse food, consisting of millets and pulses, he will be well satisfied with it. But if he is sure of getting these things, he will begin to require better kind of food, for example, rice, *chapattis*, vegetables and *ghee*. Then he will like the food to be better served; he will require metal dishes and wares instead of the earthen vessels which at first satisfied him. His wants will, thus, go on increasing limitlessly.

The progress of society has been simultaneous with an increase in the quantity and quality of human wants. The primitive barbarian had very few wants which were of a simple nature. With an increase of knowledge men began to feel new wants, the satisfaction of which was followed by still newer wants. It was this process of endless multiplication of wants which led up to the material civilisation of today. Wants are increasing constantly with wider diffusion of knowledge, improvements in the means of transport and communication and growth of trade. Upon this simple fact is based the *Law of Progress*, which states that material progress and increase of wants go hand in hand.

(2) *Each Particular Want can be Fully Satisfied.* Though wants in general are unlimited, any particular want has its limit. The want for a fruit or a book can be satisfied by consuming the desired fruit or book. Every individual want is capable of complete satisfaction. A want is satisfied slowly and gradually till its full satiety is achieved. Suppose you are hungry. After taking first *chapati*, your want is partially satisfied and you require the second *chapati* less urgently. This process of decreasing urgency of wants (or diminishing utility

of commodities) goes on till your want is completely satisfied, and the next *chapati* has no utility to you. Upon this characteristic of wants is based the important *Law of Diminishing Utility* which states that, other things being equal, the utility of each successive unit of a commodity decreases to a person as the stock of that commodity increases.

(3) *Wants are Recurrent.* Though each want can be completely satisfied at any particular time, it may be felt again after some time. For instance, you may eat bread during the midday when you feel hungry; and for the time being your want will be satisfied. But you will again feel hungry in the evening and will want food. Wants are thus recurrent.

(4) *Wants are Competitive.* Wants in general compete with each other. If a man has one rupee in his pocket, he may go to a cinema show, or purchase a book, or give himself up to the pleasure of a sumptuous dinner, or spend it on joy-rides. All these wants compete with each other in the priority of satisfaction.⁶

(5) *Wants Vary in Intensity.* Though wants are competitive, they are not all equally urgent. They vary in intensity in other words, according to the individual and according to his circumstances at the time the wants are felt. One satisfies them in the order of their intensity. One has, indeed, to arrange one's wants in order of their urgency or intensity in one's own mind—in this one is helped by one's sense of feeling and is not required to make conscious effort—and one tries to satisfy them in that order. A man who is extremely thirsty and a little hungry will first procure a glass of water and only thereafter biscuits and cakes. A very hungry boy will prefer biscuits to toys. Were all the wants of equal intensity, economic life would have become a matter of pure indifference in which no place could be given to discretion and choice. Upon this characteristic of wants is based the law of equal marginal utility.

(6) *Some Wants are Complementary.* Some wants are co-operant or complementary. If either of them is satisfied, the other must follow suit. They are satisfied together and, therefore, each of them is complementary to the other or others. If you purchase a car or a fountain-pen, you must also purchase petrol or ink respectively. If you want to travel in a second class railway compartment, you should have a good leather suit case also.

⁶Some text-book writers illustrate the competitive character of wants by stating an example like this. If a man wants something to cover his feet, he may purchase either a pair of shoes or *chappals*: shoes and *chappals* thus compete with each other. This example does not appear to be very sound. Shoes and *chappals* seek to satisfy one and the same want, *i.e.*, the want for a cover to the feet. If they compete among themselves, it means that articles seeking to satisfy one and the same want compete among themselves. It is wrong to conclude from such examples that wants compete among themselves, since only one want is taken into consideration.

(7) *Wants Become a Matter of Habit.* Most of the wants are acquired and artificial; only few wants are physiological and instinctive. Generally, they are acquired quite early in life and felt so repeatedly that they become a matter of habit. Smoking, for instance, is purely artificial. Nobody is a born smoker; we somehow begin smoking, very often for the fun of it, and later get habituated to it. Wants such as these constitute our standard of living and are of very compelling nature.

(8) *Present Wants Appear More Important than Future Wants.* To an average person a present want appears to be more important than a future want. A normal man lives in the present and will make greater sacrifices to ensure the gratification of present than of future wants. Generally we do not look so far ahead as to make provision for future wants while we are satisfying the present ones: indeed, we rarely think of future wants at such a time. This is due to two reasons. Firstly, our telescopic faculty (*i.e.*, the capacity to look ahead) is defective and makes us feel that the present want is more important than the future want. Secondly, the future is very uncertain. If we make provision for the future at the cost of the present and if, unfortunately, we expire early, we would lose a certain amount of satisfaction.⁷ On the basis of this characteristic, Seagar observes: "If goods available for present consumption be called *present goods*, and those to be available in future, *future goods*, the law may be formulated as follows: *The utility of future goods is less to the normal consumer than the utility of present goods of like kind and quality by an amount varying directly with the degree of futurity.*"⁸

(9) *Wants are Determined by Social Standards.* Most of our wants are determined by social standards of tastes rather than by independent judgments of individual consumers. This is conspicuously true of wants for clothing, shelter and amusement. That men—not to say of women—dress with reference to the opinion of their neighbours, changing the styles of their clothes, their shoes, their hats and even their collars, to conform to the vagaries of fashion, is a fact of familiar observation. There is a little more independence in the selection of dwelling houses, but here too the taste of many is subservient to that of the few who form independent judgments. As regards amusements, it is notorious that one fad follows another, bicycle-riding giving place to golf, and golf—for those who can afford it—to motoring.⁹

7A. C. Pigou, *Economics of Welfare*.

8Seagar, *Principles of Economics*, pp. 71-72. Though very general, this characteristic of wants is more marked for some social classes than for others. It would not be far from the truth to say that young children and savages live entirely in the present; that the manual labouring classes especially in climates where the winters are mild, look only a few months or a few years ahead in their economic calculations; that the great class of artisans and merchants plan with reference to their own lives and the lives of their children; and that the founders of large family fortune include generations yet unborn in their view. *Ibid.*

9*Ibid.*, p. 72.

(10) *Knowledge Increases Wants.* The tendency of wants to increase is universal; but the rate at which they multiply depends upon the rate of the spread of knowledge. In an Indian village, lying remote from the railway station, new wants arise slowly and in some cases they lie in a dormant stage; that is, the villagers do not feel conscious of any unsatisfied wants. But in the towns this is not so because knowledge and information spread quickly there, while they spread very slowly in villages. As knowledge increases, people learn new means of satisfying their wants and the desire to obtain satisfaction of these wants becomes intense. Before the invention of motor cars, wealthy people were satisfied with horses and carriages; but when the motor cars were invented and a few of them were brought to India, people soon felt attracted towards them and began to feel actual want for them.¹⁰

This example illustrates how new wants arise from increased knowledge. In our country knowledge is steadily increasing through education and through the extension of trade and travel. It is not likely, therefore, that in near future the progress of India will be so rapid as to lead to a condition in which the larger proportion of the people will have their wants completely satisfied, than it is the case at present. On the contrary, we should expect that though people might be able to satisfy increasing number of wants, new wants will arise more and more quickly so that there will always remain some unsatisfied wants.¹¹

Some Alleged Exceptions

Certain exceptions to the above characteristics of wants are pointed out. They are, as a matter of fact, apparent rather than real.

(1) Some persons like *sadhus* and ascetics, who have renounced this world, feel a limited number of wants. To them wants in general are not unlimited; nor do they increase in variety. To them there is no social standard to fashion their wants.

This is, of course, true; but an ascetic is not a social or an average man and, therefore, lies beyond the scope of Economics. In Economics, we study the wants of a *normal, social and human being* only.

¹⁰The higher the level of civilisation and culture, the more numerous and the more varied are the man's wants. We are told that in the 18th century it was very usual to come across labourers who, finding their wants, could be satisfied by 3 days' work each week, preferred to be idle for the rest of their time. At the present day it would not be difficult to find examples of people who would earn larger incomes if they worked harder or longer but for whom additional satisfaction that could be obtained is not a sufficient inducement to make the greater effort required. Education and social improvement result not only in greater productive efficiency but also in greater capacity to enjoy—Penson, *Op. Cit.*, p. 14.

¹¹Moreland, *An Introduction to Economics*, pp. 192-193.

(2) It is usually stated that each particular want is capable of complete satisfaction. But certain wants appear to remain unsatisfied almost for ever. A few instances are given below:

(a) *Want for display* is an example of this nature. A man who wants to distinguish himself through display, always seems to be in want of things like ornaments, motor cars, magnificent buildings, etc., and unceasingly spends money on such objects. The more he possesses such things, the more he can display himself and the more he wants them. His want of display appears to be insatiable.

The above reasoning is correct. But the want of display is not the want for a particular commodity, but for a large number of commodities. If you pick up a particular commodity out of the group of articles of display and increase its supply, the want for it will go on decreasing and a point will sooner or later come when the next unit of that commodity will cease to have any utility.

(b) *Want for power* is a similar example. Some men want power over men; and the more power they get, they more they want. The lust for power seems to be real and insatiable; but men wanting power are not ordinary men. Economics is not concerned with abnormal characters.

(c) *Want for money* also appears to be insatiable. Indeed, it appears that its utility does not decrease at all; and if it does, it does very insignificantly.

But money is, not required for its own sake, but for the sake of the large number of commodities which it can purchase. As such, money is not a single commodity but is a group of all the commodities it can purchase. It is, therefore, only natural that the want for it may not be satisfied, wants in general being unlimited.

(d) *Miser's Love for Money*. A miser wants money and the more he gets it the more he requires it. It seems to be an exception to the general law that each particular want is satiable. But miser is not an average man. He is as far removed from the average man as the ascetic or *sadhu* who does not come under the scope of Economics.

§ 5. MULTIPLICATION OF WANTS

Sometimes the question is asked : Is the multiplication of wants desirable? This question is extremely controversial and much can be said on both the sides.

It is Desirable

Those who say that the multiplication of wants is desirable say that when a want is satisfied, some satisfaction is obtained.

Consequently, if you satisfy a larger number of wants, you will get a larger volume of satisfaction, which is very desirable. *Secondly*, modern progress and civilization consists in the increasing number of wants. The most primitive man needed very few things; some leaves or bark of trees to cover his person and some rough tools to kill animals and detach flesh from skin. But as he became more and more civilized, his wants began to increase. And today in his most civilized state, human wants are almost limitless. It is a historical fact and proves that progress or civilization consists in multiplication of wants. *Thirdly*, if we reduce our wants, our incentive to make economic progress or assert national individuality and rise in the world would be damped. The Malaya aborigine has few wants and while immigrants work and develop his country, he sits under a tree and cheerfully smokes, not doing anything and not caring for what others do. This is a sure sign of decay. *Fourthly*, if we do not believe in increasing number of wants, we would become economically weak so that any country of the world can come and make us a subject nation. If the standard of living of Indians rises, their urge to be free will greatly strengthen.

It is Undesirable

There are thinkers of the other school as well who believe that the multiplication of wants can never be desirable. These gentlemen are generally of a religious bent of mind and believe in spiritual development. They give the following reasons in support of their view : (i) If we have to satisfy a large number of wants, we will have little time for spiritual development which alone gives true pleasure. (ii) Not only this, but multiplication of wants and constant efforts to satisfy them make us materialistic and therefore make us unfit for spiritual development. (iii) Even on economic grounds wants should not be multiplied for a very good reason. It is true that if you satisfy more wants, mathematically you get more satisfaction. But once your wants increase, they increase almost limitlessly ; so that even if you are able to satisfy many of them, you cannot even think of satisfying the rest. The wants which you cannot satisfy are a source of discomfort or pain to you. The net amount of satisfaction that you, therefore, get is very little. Really if you increase your wants to a considerable degree, you may get very little amount of net satisfaction.

The Right View

The above are the views for and against increasing the number of wants. We on our part believe that truth lies somewhere in between these two extremes. If we have very few wants, we have no incentive to progress and in fact no means of making progress. But if we have too many wants, our discomfort begins to increase. We should, therefore, have neither too few wants nor too many of

them. The total satisfaction which on balance we get by increasing our wants can be represented by the following diagram :—

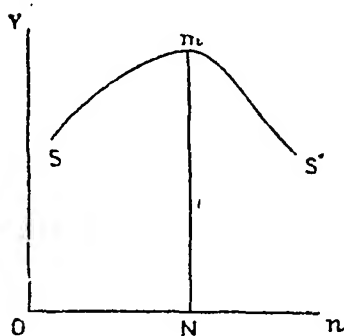


Fig. 9.

We have measured the total net satisfaction along OY axis and number of wants along ON axis. MS' is the net satisfaction curve. In the beginning as we increase our wants, our satisfaction goes on increasing, till the point M arrives. At this point, if we satisfy ON wants, our satisfaction will be maximum, i. e., MN . But if we increase our wants beyond that point, our net satisfaction begins to decline; MS' curve suddenly goes down.

It is thus clear that the multiplication of wants is desirable only up to a certain extent. It is, however, impossible to give a precise degree of the extent to which wants should be multiplied.

TEST QUESTIONS

1. What do you mean by a *want*? Distinguish it as clearly as possible from *desire*.
2. Show the relationship between wants and activities. Is it wants which react upon activities or the activities which react upon wants?
3. What are the factors which determine the wants of a person? Discuss in detail.
4. Discuss the important characteristics of wants and the laws based on them.

EXAMINATION QUESTIONS

U. P., Inter. Arts.

1. What are the chief characteristics of human wants? Discuss their importance in the study of Economics. (U. P., 1948, 46.)
2. Discuss the main characteristics of human wants. Is the multiplication of wants desirable? (U. P., 1942).
3. Wants lead to productive activities and productive activities to newer wants. Discuss it fully. (U. P., 1938).

U. P., Inter. Commerce.

4. What is meant by want in Economics? What are the chief characteristics of human wants? (U. P. Com., 1948).
5. Man's wants have various characteristics. Name and explain some of the economic laws that are deduced from these characteristics (1947).
6. What are the characteristics of human wants? Discuss the relation between wants and activities. (U. P., Com., 1942).

U. P. Int. Ag.

7. Explain: Wants are competitive (1950).
8. Explain: Each particular want is satiable. (1948).

Rajputana Inter. Arts.

9. Discuss the main characteristics of human wants. Is the multiplication of wants desirable. (1949).

10. Do wants give rise to activities or activities give rise to want? Illustrate your answer. How far is the multiplication of our wants desirable? (Raj., 1943)

Raj Int. Com.

11. Mention the factors on which wants depend. Is it a fact that wants increase more rapidly than income? If so, what steps would you take to balance them? (1946)

Patna Int. Arts.

12. What are the main characteristics of human wants and what is the economic significance of each? (1946)

Sagar Int. Arts.

13. Describe the chief characteristics of human wants. (1949)

14. Define human wants. How would you classify them? (1949 Supp.)

15. What are the characteristics of human wants? Which want is more urgent and why? (1948)

Sagar Int. Com.

16. Carefully define wants, and explain their chief characteristics. (1949 Supp.)

Nagpur Int. Com.

17. Give the characteristics of human wants and explain how wants and activities act and react on each other. (1949)

Banaras Inter. Commerce.

18. Discuss the characteristics of human wants. Can they ever be satisfied completely? (1945)

Bombay Int.

19. Write note on Complementary wants and Alternative wants. (1949)
Other Universities.

20. Describe the more important characteristics of wants. (Punjab, 1935)

21. What is the distinction between 'wants' in the economic sense and mere 'desire'? How would you classify wants? (Delhi, 1939)

22. "There is an endless variety of wants but there is a limit to each separate wants." (Marshall) Explain. Can wants be measured? (Delhi 1938)

23. Why is a knowledge of human wants so essential for the study of Economics? Enumerate and explain some characteristics of these wants. (Delhi, 1936)

24. "Man's wants have various characteristics each of which is of great importance, for on each depends some great economic law." Amplify this statement. (Bombay, 1939)

25. What are the chief characteristics of human wants, show how the science of Economics takes these characteristics into account? (Bombay Com., 1939)

CLASSIFICATION OF WANTS

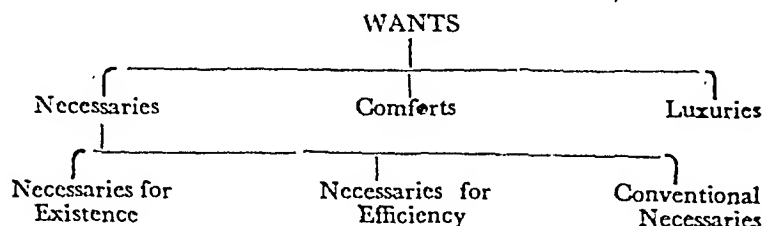
Consumption may be economised by a change of habit but any stinting of necessities is wasteful.—*Marshall*.

We have already seen that wants vary in intensity or urgency. All wants are not of the same intensity; some wants are more intense, others less intense. Wants which are most urgent are known as *necessaries*; those which are least insistent are known as *luxuries*; while those of medium intensity are known as *comforts*. The order of the urgency of wants and the order in which they are normally satisfied is as follows: (i) Necessaries, (ii) Comforts, and (iii) Luxuries.¹ These are the three classes in which wants can be divided.

1. Necessaries

By necessities we mean those wants which are of very primary and elementary nature; so much so that if they are left unsatisfied, acute pain is caused. Their satisfaction is necessary for the preservation of life, efficiency or social prestige.²

Necessaries are of three varieties. In the first group come those wants which must be satisfied in order to preserve life. If we do not satisfy these wants, we shall not be able to keep alive. They are known as *Necessaries for Existence*. In the second group fall those wants which must be satisfied for the maintenance of our efficiency. They are known as *Necessaries for Efficiency*. If we consume these articles, our efficiency will remain intact; otherwise, it will deteriorate. In the third and final category come those wants which have to be satisfied in order to keep social prestige. These are known as *Conventional Necessaries*. The following classification of wants makes this subdivision clear:



¹The order in which wants are satisfied is not a matter of set rules or regulation but of personal habits, tastes and desire which vary. Wants will be satisfied in order of their urgency, in the absence of any such disturbing factor as sense of moral obligation or duty, etc.

²Students must not write "articles of necessary." They should write "articles of necessity" or "necessaries" instead.

(1) *Necessaries for Existence*.³ The articles which are just necessary for keeping a man alive are known as necessities for existence. They include that minimum quantity of food and drink, clothing and shelter without which life cannot be preserved.

Necessaries for existence are not the same in all the countries and climates and for all the time to come. "In cold countries the term includes, in addition to sufficient food and drink, a certain amount of clothing and also some sort of house for shelter ; in the plains of India the necessary amount of clothing and shelter is very small and perhaps a blanket for the winter is all that a man absolutely requires, so that here the term necessities for existence means very little more than the small amount of grain and water that is sufficient to keep people alive."⁴ In India there are large number of unfortunate and poor persons who do not even get all the necessities for existence and actually semi-starve.

(2) *Necessaries for Efficiency*. Necessaries for existence are meant to keep a man alive. In order that he may be able to work efficiently in the occupation he happens to be engaged in, a man has to consume certain things over and above the bare necessities for existence. Such articles which are necessary for the preservation of one's efficiency are known as Necessaries for Efficiency.

Moreland observes that this term includes everything which a man must consume in order to work efficiently at his occupation and educate his children up to the point where they can be expected to do as well as he has done. In India the term includes (i) better and more well-balanced food than is just necessary for existence; (ii) a certain amount of clothing and furniture and an airy and well-ventilated house for shelter, and (iii) opportunities for medical treatment and for the education of children at least up to the stage which he himself has reached. A very small proportion of the people in India can enjoy all the necessities for efficiency mostly because of poverty and partly because of ignorance.

(3) *Conventional Necessaries*. Conventional necessities are those necessities which must be consumed because of some social conventions and in order to maintain social prestige. A man lives in a society having certain set traditions or conventions or customs which each member must follow. For instance, the society requires a man to offer *pan* and tobacco when a guest comes ; to give a feast when a marriage takes place ; to undergo certain religious ceremonies when somebody dies. A man has to follow these customs and conventions on pain of social discredit, *badnami* as it is called, and sometimes even excommunication. This is particularly so in a

³Also named as 'absolute necessities'.

⁴Moreland, *An Introduction to Economics*, p. 151.

custom-ridden country like India.⁵ This accounts for the great urgency of this class of wants. In fact, many people sacrifice the consumption of articles of efficiency, in order to consume conventional necessities. For instance, cultivators and labourers will semi-starve rather than not offer *hugga* or *pan* to the visitors or not give a feast on the occasion of a marriage or death. Similarly many a student will give up the consumption of such healthy stuffs as butter and *ghree* in order to enjoy cinema-shows which every polished student is expected to see.

Factors Determining Necessaries. The factors governing each class of necessities are different. Necessaries for existence are primarily determined by environment and physiological and economic factors. Necessaries for efficiency are, of course, determined by the nature of work a man is expected to do. Necessaries for efficiency of blacksmith must naturally differ from those of a lawyer or a teacher. Much discretion has to be used in selecting necessities for efficiency. Conventional necessities are, of course, determined by social customs and conventions which are an index of the stage of social development.

2 Comforts

Necessaries, it may be repeated, are just sufficient to keep a man alive, to preserve his efficiency at work and to maintain his social prestige. This is the bare minimum for ordinary living. Usually some other nice articles have to be included in consumption for a decent living. Articles of comfort are of this nature. Their consumption affords appreciable pleasure and also increases consumer's efficiency slightly; while their non-consumption neither causes much pain nor does it decrease actual efficiency which (though it certainly prevents the additional efficiency which their consumption would have yielded). Obviously, the articles of comfort enable a man to lead a richer and fuller life than what is otherwise possible. Good shoes, fine *kurta*, cinema-shows and such other articles may be cited as examples of articles of comfort.

3 Luxuries

Luxuries are those articles whose consumption affords very great pleasure but does not contribute to our efficiency; and whose non-consumption neither causes any pain nor decreases our efficiency. Palatial buildings, the maintenance of Rolls-Royce and other costly

⁵“To this class of conventional necessities belong the want for tea, coffee and *pan* among the higher classes in India and the want of *hugga* among the masses. To this class also belong all our wants connected with social and religious ceremonies, and in a custom-ridden country like India, it is not difficult to find people who for months and years go on economising on their absolute necessities to make a grand show for a day or two on the social wants”—B. G. Bhatnagar, *Outlines of Economics*, p. 42.

cars, the keeping of elephants by Indian princes and the possession of costly paintings of renowned painters are some of the examples of luxuries. Because articles of luxury do not increase our efficiency but simply give us pleasures, their consumption is often regarded as useless and is looked down upon. This is the reason, why Professor Gide defines luxury as the "satisfaction of a superfluous want" and Professor Ely calls it "excessive personal consumption."⁶

There are certain articles of luxury, like wine, which give us only fleeting pleasure but decrease our efficiency quite considerably. Their non-consumption causes much pain if one gets addicted to them, though it prevents a deterioration of efficiency which would otherwise result. They are known as *extravagances*.

The Standpoints of Classification

The above classification of wants into necessities, comforts and luxuries has been made from two points of view ; (i) efficiency and (ii) pleasure and pain.

Efficiency. Those articles which when consumed preserve efficiency and which if not consumed decrease it, have been called necessities. The articles which when consumed contribute to efficiency slightly and which if not consumed do not decrease actual efficiency (but cause a loss of efficiency which could have been otherwise achieved) are known as articles of comfort. Finally, those articles which if consumed do not increase efficiency, and which if not consumed do not decrease efficiency, are known as articles of

⁶The following table gives a provisional and rough list of necessities, comforts and luxuries :

Necessaries	{ for sustaining life for mere subsistence the minimum	{ i. e., a reasonable amount of plain wholesome food, of decent clothing and of healthy home surroundings.
Comforts	{ for fuller life for more wholesome existence decent standard of living	{ i. e., better food, clothes and housing with some provision for recreation and amusement, and for the satisfaction of intellectual needs.
Luxuries	{ for refinement of life for expensive habits and amusement a more elaborate mode of living	{ i. e., costly motors, orna- ments, table delicacies, etc., together with the indulgence of expensive taste in art, lit- erature and travel.

luxury. When the consumption of the latter actually decreases efficiency, they are called articles of *extravagance*.

	Effect on efficiency		Effect on pain and pleasure	
	When consumed	When not consumed	When consumed	When not consumed
Necessaries...	Preservation	Great decrease	Slight pleasure	Acute pain.
Comforts ...	Slight increase	No decrease in actual efficiency (but loss of possible increase in efficiency.)	Sufficient pleasure	Slight pain.
Luxuries ...	No increase	No decrease	Very great pleasure.	No pain (unless used)
Extravagances	Decrease ...	Prevention of possible decrease.	Momentary pleasure.	Much pain if one gets addicted.

Chart 10. Showing the distinctions between necessities, comforts and luxuries.

Pain and Pleasure. The second point of view of the classification is the causing of pain and pleasure. When consumption of an article gives only slight pleasure while its non-consumption causes great pain, it is known as an article of necessity. When, however, its consumption gives sufficient pleasure while its non-consumption causes slight pain, it is known as an article of comfort. Finally, when the consumption of an article gives ample pleasure, while its non-consumption causes no pain, it is known as an article of luxury. If the consumption of an article simply gives us momentary pleasure, while its non-consumption causes intense pain provided one gets used to it, it is known as an article of extravagance.

Necessaries, Comforts and Luxuries are Relative Terms

It must not be supposed by the reader that a particular article is an article of necessity, or comfort, or luxury for all the people and all the time to come. In fact, the personal circumstances of the consumer, *e. g.*, the income, occupation, surroundings, habits, etc., determine whether an article is one of necessity or of comfort or of luxury to him. It follows, therefore, that the same article may be a necessity to one, a comfort to another and a luxury to the third. For instance, a car is a necessity for a medical doctor who has to rush from one patient to another with the least possible loss

of time; it may be a comfort to a professor, since it keeps him refreshed for the lectures, saves his time and thus somewhat increases his efficiency; but it is undoubtedly a luxury to an idler who uses it merely for joy-rides. Again, tea is a necessity for an educated Indian, while it is probably a luxury for an Indian cultivator. Shirts were once considered as articles of luxury in Europe but now they are articles of bare necessity. In India they are still articles of luxury for many poor people. A carriage is a comfort to a woman of fashion, a necessity to a physician and a luxury to a tradesman.

An article may similarly be one of luxury to a person at one time, of comfort to him at another and of luxury at still another time. For instance, a fountain-pen is obviously a luxury for a small child reading in an infant class. It becomes an article of comfort to him when he becomes a student of IX or X class; but it becomes a necessity for him when he joins a college and has to take down notes very quickly.

It would, indeed, be wrong then to draw a definite line of demarcation between the articles of necessity, of comfort, and of luxury, so as to apply to all persons or to be valid permanently. These three terms are at best only relative; and when we say that a particular article is an article of necessity, or comfort, or luxury all that is meant to say that it is so in respect to a particular person at a particular time.

Order of Consumption

It is sometimes said that a person first spends his income on necessities, then on comforts and finally on luxuries. This statement is generally and largely true. In case a man spends his income most wisely, he would naturally act in this manner. Necessaries are most urgent and would receive his first attention. Comforts would then be secured; and luxuries would be obtained only in the last. But unfortunately everybody does not spend his income wisely. Much of our expenditure is thoughtless and careless; and when it is so, we often spend on comforts and luxuries even if our necessities have not been satisfied. An ekkawala may thoughtlessly go to cinema show and may then be left with only a few pice which may not bring him enough food. Such cases are not rare. Another reason of unwise expenditure is lack of intelligence and understanding; and an educated man would not spend his money so badly as an illiterate person. *Thoughtlessness and lack of knowledge of correct expenditure are the two reasons why the proper order of expenditure is not always followed.*

TEST QUESTIONS

1. Give a classification of wants.
2. Distinguish between necessities, comforts and luxuries. What are the standpoints of classification adopted by you?
3. Show how necessities, comforts and luxuries are relative concepts.

EXAMINATION QUESTIONS

U. P. Inter. Arts

1. Explain fully the difference between Necessaries, Comforts and Luxuries. Illustrate by example. (1951)
2. Write short notes on necessities and comforts. (1948)
3. Write a short note on Conventional Necessaries. (1947)
4. Distinguish between economic and non-economic wants. Classify the former bringing about a clear distinction between the various classes. Give examples of each class. (I. A., 1939)

U. P. Inter. Com.

5. What tests would you apply in classifying wants into necessities, comforts and luxuries? Illustrate from Indian examples. (1949)
6. Distinguish between necessities, comforts and luxuries. On what basis is this classification made? (U. P., I. Com., 1946)
7. Distinguish clearly between necessities, comforts and luxuries. Can an article be a necessity, a comfort and a luxury to the same individual? (I. Com, 1940)

Rajputana Inter. Arts

8. Economic wants have been classified into those for necessities, comforts and luxuries. Explain the three items fully. What tests would you apply in distinguishing between them? (1949).
9. Distinguish between necessities, comforts and luxuries. Give examples. (1948)

Rajputana Board

10. Show how the classification of wants into necessities, comforts and luxuries does not primarily refer to articles of consumption, but their units, and varies according to the individual consumer, the time and place. Give examples from India wherever possible. (I. A., 1945).

Raj. Int. Com.

11. How do you classify consumption into necessities, comforts and luxuries? Illustrate your answer. (1948)

Nagpur Int. Arts

12. How do you distinguish between necessities, comforts and luxuries? Is this classification of wants absolute? (1948)

Nagpur Int. Com.

13. Explain the difference between Luxuries and Conventional Necessaries. Give illustrations. (1948)
14. How do you classify wants into necessities, comforts and luxuries? (1942 Supp.)

Sagar Inter. Arts

15. Write notes on Necessaries, Comforts and Luxuries. (1949)
16. Define human wants. How would you classify them? (1949 Supp.)

agar Inter. Com.

17. Write note on '*Luxuries*'. (1950).
18. Write note on '*Necessaries*'. (1949 Supp.)

Benares Int. Com.

19. Write note on conventional necessities. (1947)

Other Examination Bodies

20. Clearly distinguish between necessities, comforts and luxuries. (Punjab I. A., 1936)

ATTENTION

[Sometimes *Demand* is discussed under "consumption". We have discussed it under "Exchange" (Book IV, Chapter 46) to which a reference may be made.]

THE LAW OF DIMINISHING UTILITY

The utilities of additional units of any good to any consumer diminish normally as his supply of units of that good increases—*Seager*.

§ 1. THE EXPLANATION OF THE LAW

The utility yielded by an article is subject to an interesting law which operates daily in the ordinary course of life. It is a matter of common observation that the more we have of a commodity, the less urgently we want its subsequent units; in other words, the utility yielded by its succeeding units goes on diminishing. Suppose you are very hungry, and get a mango from somewhere; its utility will be very great to you because it practically saves you from starvation. You will require a second mango also to satisfy your hunger; but since a part of your appetite has already been satisfied, the second mango will not give you as much utility as the first one. The third mango will yield even less utility as compared with the second mango, for the same reason. The utility of each subsequent among will similarly go on diminishing gradually, till you arrive at the stage where your hunger is fully appeased, and the utility of the next mango in succession drops to zero—it will be a matter of indifference to you whether you eat this final mango or not. Even if you consume it, you will probably dislike to eat further mangoes lest they might cause constipation—you will derive 'negative utility' or 'disutility' from them. This commonplace example shows that the utility of each successive unit of an article goes on diminishing as its supply goes on increasing, other things remaining the same.

This tendency operates universally and is visible in the case of all the objects satisfying human beings.¹ The first overcoat may give you more utility since it saves you from cold; but the second one will afford less utility as it just provides a variety. The second pair of shoes, the second fountain pen, the second hat and the second table do not yield as much satisfaction as the first ones. Even the less material wants obey the same law. Eyes tire of beautiful pictures or scenes and ears are deadened by even the sweetest music in course of time.

¹As our capacity to enjoy food is limited so is our capacity to enjoy clothes. A normal person intensely feels the need for a respectable suit of clothes, a pair of shoes, etc. A second is less indispensable, but satisfies a lively desire. Additional suits satisfy wants of steadily diminishing intensities and in time the point of satiety is reached even by the most fastidious dandy.—*Seager, Principles of Economics*, p. 71.

This tendency is known in Economics as the Law of Diminishing Utility, and may be stated as below: *Each unit of a commodity gives, other things remaining the same, less utility to the consumer than the foregoing unit.*²

Illustration

We shall now take an example to illustrate this law. Suppose a man has a big family and requires six maunds of wheat per month for its consumption. The utility of the first maund of wheat is very great to him since without it the members of his family will starve to death. The utility of the first maund, let us say, is 100. The second maund of wheat is necessary, but is not so urgent as the first maund. Its utility will, therefore, diminish, say to 80. The utility of the third maund will be still less, say 60; the utility of the fourth maund may be 25; that of the fifth, 10; and that of the sixth, zero. He will not purchase the seventh maund of wheat obviously because that is not required. The seventh maund has for him negative utility or 'disutility', firstly because he will have to spend money on it without getting any satisfaction in return; and secondly, because the consumption of the additional maund might spoil the digestion of the consumers. Its utility may be said to be -20 (*minus* twenty). The utilities of the successive units of wheat may be tabulated as below:—

<i>Maunds of Wheat</i>	<i>Units of Utility</i>
1	100
2	80
3	60
4	25
5	10
6	0
7	--20

It is clear from the table how the utility of each following maund

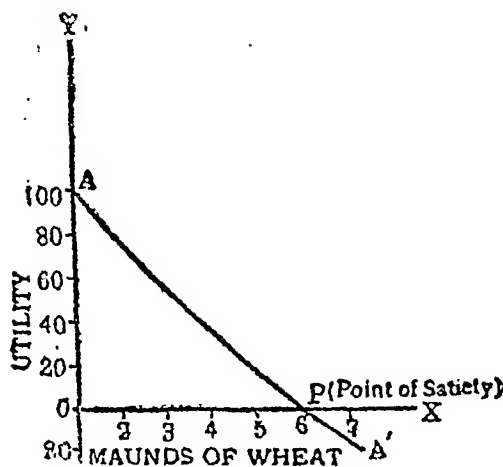


Fig. 10. Illustrating the law of diminishing utility.

The curve AA' touches OX at the point P where the utility is zero. The seventh unit of wheat gives disutility so that the curve extends below the line OX , which is the line of zero utility. The point P is the point of zero utility and is also known as the 'point of satiation.'

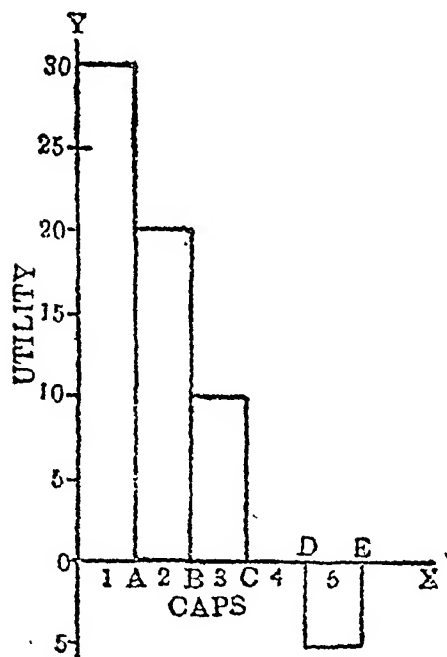


Fig. 11.

Diagrammatic Representation

The above illustration can be represented by a diagram. In Fig. 11, maunds of wheat have been measured along the OX axis; and utility along the OY axis. The first unit of wheat gives 100 units of utility and thus we get the point A . We plot other points similarly and get the AA' curve by joining these points. This curve shows a steep fall representing the fall in utility. The utility of the first maund of wheat is OA but the utility of the sixth maund of wheat is zero.

3Diagrammatic representations are of two kinds, (i) curves as shown above and (ii) rectangles to be discussed below. If an article is divisible, i. e., if it can be divided without any loss of its value, its utility is represented by a curve. Wheat can be divided without any loss in its value : therefore, its utility has been represented by a curve as above. But take the case of a cap. If you cut a cap into two, its utility will be seriously curtailed. Cap is an indivisible commodity since its utility decreases if it is divided. The utility of indivisible commodities is best represented by rectangles. Rectangles give the idea of the separateness of each unit and therefore this method is adopted in the case of indivisible units.

Suppose the following is the table of utility of caps :—

Utility of Caps	Utility Derived
1	30
2	20
3	10
4	0
5	-5

(continued on page 102)

§ 2. OTHER THINGS REMAINING THE SAME

In the statement of the Law of Diminishing Utility, we mentioned that the utility of each successive unit goes on diminishing, *other things remaining the same.*⁴ The words 'other things remaining the same' might appear to the reader vague and useless; but this is not so. These words are very significant and imply the following important qualifications:

(1) *The units of the commodity must be similar in quality and quantity.* If this condition is not satisfied, the law may not operate. Suppose the first *chapati* given to a very hungry man is very coarse; but the next *chapati* is made of superior stuff and is very tasteful. The second *chapati* will evidently give him more satisfaction than the first one. The law of diminishing utility does not operate here because the units of *chapati* are not similar. Were the second *chapati* as coarse and rough as the first one, its utility would definitely be less than that of the latter. Similar considerations apply to the quantity of each unit. The quantity of each unit must remain the same. If the second *chapati* is twice as heavy as the first *chapati*, it is likely to give more satisfaction than the latter.

(2) *The period of consumption must be the same.* In other words, the period over which consumption is spread should be continuous and without break, otherwise the law will not operate. If a man, for example, takes food once in the morning and again in the evening, he might relish it more in the evening than in the morning probably because the hard work of the day has given him good appetite or because some good news has cheered him up. The law of diminishing utility does not apply here because the time of consumption is not continuous and the same. In fact, food has been taken twice and the law operates in each case separately. But if the second diet is taken immediately after the first diet, the utility of the former will be definitely less than that of the latter.

(3) *The mental outlook of the consumer should remain the same.* This is very important. The man who is taking food may, for instance, find that the sixth loaf that he has taken has yielded zero utility. If he now takes a little *bharg* or some other intoxicant, he may suddenly feel a craving for more loaves. It appears, then, that the law of diminishing utility does not apply in this case. Of course, it does not, because the mental outlook of the consumer does not remain the same.

(4) *If the period of consumption is long, the fashion, habit and income of the consumer should remain the same.* In the case of durable [goods, a change in either of these three things, namely, fashion, habit and income, may hinder the operation of the law and may increase the utility of successive units of the commodity in question. For instance, a particular type of shoe may not be in *fashion* and its utility may be fairly low to a man ; but if somehow it again comes into fashion, its utility will immediately increase. Again, a man not addicted to cigarettes does not derive any utility from them ; but if he somehow acquires the *habit* of smoking, their utility will increase to him. Finally, a man may be so poor that it may not be worth his while to purchase a costly flower-vase ; but if he suddenly becomes rich, he may begin to feel its necessity very urgently and its utility to him may increase. In all these three cases the law of diminishing utility does not operate because the fashion or habit or income has changed. The law operates only when these factors remain the same.

(5) *The price of the commodity and its substitutes should remain the same.* If an article becomes cheap, one may want it with increasing intensity and its utility may, therefore, increase. The utility of an article may also increase if the price of its substitutes has gone up, so that one will now shift one's consumption to the article in question whose utility has obviously gone up due to its comparative cheapness. The unchangeableness in the price of the article in question and the substitute thereof is important for the operation of the law.

§ 3. EXCEPTIONS TO THE LAW

The law of diminishing utility has almost universal application.⁵ If the various assumptions covered by the phrase "other things remaining the same" obtain in practice, the law *will* operate. Certain exceptions to this law are, however, suggested most of which are apparent rather than real.

Apparent Exceptions

(1) *If we take a very small quantity of an article as our unit, the law may not operate.* Professor Chapman gives the example of a man who wants to prepare tea but who has no coal. Suppose he gets an ounce of coal. This much of coal is practically useless to him and has hardly any utility. If he gets another ounce, the quantity of coal will come nearer the serviceable quantity, so that the utility of the next ounce will, of course, be greater than that of the first ounce. The utility of each additional

⁵The tendency shows itself so widely and with so few exceptions that there is no significant inaccuracy in speaking of it as universal.—Taussig, *Principles of Economics*, Vol. I.

ounce will thus go on increasing till he gets adequate quantity of coal ; after this stage, it will begin to diminish.⁶

In this diagram, the utility curve of coal (AA'A'') goes on increasing till the point A' is reached. At this point, sufficient quantity of coal has been obtained ; therefore, the utility of each successive unit begins to diminish. This is the reason why AA' is a rising curve while A'A'' is a falling curve.

In this case the law does not operate because the small quantity of coal taken in the example does not constitute a unit. In actual practice we find that the unit of a commodity is big enough to be of some service. Therefore one ounce of coal is not really a unit ; nobody uses coal in the units of an ounce ; it is only a part of a unit.

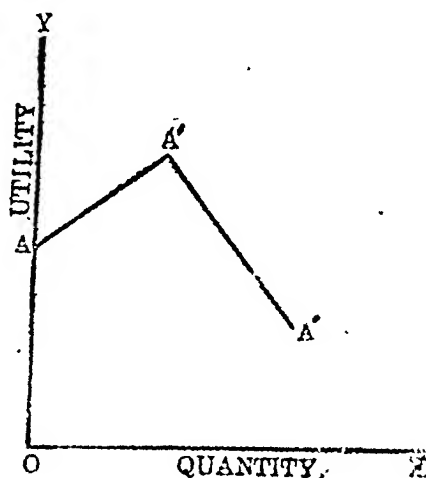


Fig. 12.

(2) *Curious and rare objects are alleged to be exceptions to this law.* A stamp collector will attach greater importance to every new and rare stamp he is able to gather because that will go to make his album more precious than before. Similarly a man who has the hobby of collecting old autographs will feel more satisfied with every successive autograph he is able to collect. This exception is apparent rather than real, because an average man is not habitually actuated by hobbies : his simple wants and needs do not share the characteristics of hobbies. As such, this example is abnormal. Moreover, even in the case of such persons, a point will be reached, howsoever remote that may be, when the additional stamps or autographs will give diminishing satisfaction.

(3) *A drunkard is said to obtain increasing utility from each additional peg of wine.* The case of a drunkard is obviously abnormal since his mental outlook is changed after he takes the first dose of the liquor. Moreover, a drunkard is not an average man and his actions are, therefore, not the concern of an economist. Finally, even in the case of such persons a point does arise when the utility of each successive dose begins to decrease. This exception is, therefore, apparent, not real.

(4) *Love of display, love of power and love of money are said to be other exceptions to this law.* The lust of this sort is almost insatiable and, therefore, the utility of every additional unit of the commodity ministering to any of these wants appears to be increasing. Such persons, however, are removed from the average man, and Economics does not study them. Moreover, even in these cases a point can arise when the law will set into operation. All of us have read the story of King Midas who was mad after gold but, when given an unlimited quantity of that metal, soon grew tired and ceased to attach any value to it.

(5) *Sometimes it is said that the utility of a commodity begins to increase if a large number of people begins to use it.* Telephone is the case usually cited in this connection. As the number of persons who have telephonic connection increases, the utility of the telephone also rises because its owner can now talk to a large number of persons.

This example is fallacious, though the fallacy is difficult to detect. According to the law, the *successive units* of a commodity give diminishing satisfaction to a consumer. If the owner of a telephone takes one more connection, naturally its utility will be less to him than that of the former connection. In the example given above the telephonic connection with a particular person remains only one. Since successive telephones acquired by a person have not been taken into account, this example does not come under the law of diminishing utility. Moreover, this example anticipates a change in the habit of the people which is excluded from the conditions necessary for the operation of the law.

Real Exceptions

(1) *Professor Taussig mentions that a second or a third reading of a good piece of poetry, or the hearing of good music for the second or the third time, may yield greater utility than the first.* This exception seems to be real. This is a fact of our ordinary observation.

However, even in this case a point will arise sooner or later, when the utility begins to diminish and the law will begin to operate. Each receptive faculty is, in fact, subject to exhaustion and takes time to recuperate.

(2) Some economists believe that when we begin to consume an article, the utility of each successive unit goes on increasing in the beginning. It is only after a certain stage in consumption is reached, which is called by them the 'point of optimum satisfaction', that the utility begins to diminish. [Refer to Fig. 12, p. 104.]

If the psychological assumption of the above example is taken to be correct, then it is a real exception to the law which does not operate till the point of optimum satisfaction is reached. But there is no positive proof to support the accuracy of the above

Sagar Int. Com.

14. State, explain and illustrate the Law of Diminishing Marginal Utility. State its exceptions. (1949)

Benares Int. Arts

15. State and explain the Law of Diminishing Utility. What are its limitations? (1946)

Benares Int. Com.

16. State and explain the Law of Diminishing Utility. (1948)

Travancore Int.

17. What is meant by (a) the Law of Diminishing Utility, (b) the elasticity of demand? Is there any connection between the two? (1943)

18. Are there any exceptions to the Law of Diminishing Marginal Utility? (Punjab, I. A., 1939, 1936)

19. State what you consider to be the most important law of Consumption. (Punjab, I. A., 1939, 1936)

20. Enunciate the Law of Diminishing Utility. How is the law related to:

(a) the law of demand;

(b) elasticity of demand;

(c) the law of equi-marginal utility?

(Delhi, I. A., 1934)

statement: the validity of this exception cannot be definitely ascertained.⁶

TEST QUESTIONS

1. Enunciate and explain the law of diminishing utility. Give diagrams to illustrate your answer.
2. Are there any exemptions, apparent or real, to the law of diminishing utility? Discuss them fully.
3. How do you state the law of diminishing utility? What is the implication of "other things remaining the same"?

EXAMINATION QUESTIONS

U. P. Int. Arts.

1. What is meant by utility? Explain the Law of Diminishing utility. What is the meaning of "other things remaining the same?" What are these other things? (1949).
2. State and explain fully with the help of a diagram, the law of Diminishing Utility. (1948)

U. P. Int. Com.

3. State, explain and illustrate the Law of Diminishing Utility. Are there any apparent exceptions to it? (1950)
4. Explain clearly the law of satiability of wants. Can you derive from it any law to guide people in their expenditure? Explain with examples. (1946).

Raj. Int. Arts.

5. State and explain the Law of Diminishing Utility. Analyse the reason for any exceptions. (1949)
6. State and explain the Law of Diminishing Utility. Analyse the reasons for any exceptions. Illustrate. (I. A., 1942, 1940)

Raj. Int. Com.

7. State and explain the Law of Diminishing Utility. How does it give rise to consumer's surplus? (1949)

Patna Int. Arts.

8. State and explain the Law of Diminishing Utility. What are its limitations? (1949 S)
9. Explain carefully the Law of Diminishing Utility. Are there any exceptions to this law? (1945 A)

Patna Int. Com.

10. Explain the Law of Diminishing Marginal Utility. Point out its limitations. (1949 S)

Nagpur Int. Com.

11. Enunciate and fully explain the Law of Diminishing Utility. (1942)

Sagar Int. Arts.

12. Explain the Law of Diminishing Utility. What are the conditions under which it operates? (1950)
13. Explain the Law of Diminishing Utility. Does it apply to money? Illustrate. (1948)

⁶These two exceptions can be excluded from the list of real exceptions, if we restate our law as follows: *After a certain stage in consumption is reached, each successive unit gives diminishing utility, other things remaining the same.*

§ 3. TOTAL UTILITY

The sum total of the utilities of all the units of a commodity consumed at a particular time is known as Total Utility. If you eat five oranges at a time, the sum total of the utilities of all the five oranges will be the total utility of the oranges. If, of the five oranges consumed, the utility of the first unit of orange is 100, of the second 80, of the third 60, of the fourth 20, and of the fifth 10, then the total utility of oranges will be $(100+80+60+20+10=)$ 270.

As we consume more and more of a commodity, the total utility derived from its consumption goes on increasing; but this increase takes place at a diminishing rate (or less than proportionately) because of the operation of the law of diminishing utility. For instance, if the utility of the first unit of orange is 100, the utility of the second unit will be only 80; so that when two units are consumed, the total utility comes to 180 only, and not to 200 which is the corresponding proportionate figure.

Oranges	Marginal Utility of Oranges	Total Utility of Oranges
1	100	100
2	80	180
3	60	240
4	20	260
5	10	270
6	0	270
7	-20	250

According to the above table of the utility of oranges, if only one orange is purchased, we get 100 units of marginal utility and since it is the only unit consumed, the total utility is also 100. If the second orange is also consumed, then 80 units of utility are added to 100 units of utility given by the first orange, the total utility thus coming to 180. Calculations thus made are shown in the above table.

An important thing which you must have noticed in the above table is that the total utility goes on increasing just before the arrival of the point of satiety. When the point of satiety is reached, the total utility remains the same as before—nothing is added to it nor anything is deducted from it. After the point of satiety is reached, total utility begins to fall.²

²The reader should remember that total utility is not taken into account while discussing the law of diminishing utility. The latter is concerned only with marginal utility. It is the marginal utility of a commodity, which goes on diminishing as the stock of that commodity goes on increasing.

consumed; and its utility becomes marginal utility. Marginal utility is positive up to the fifth maund of wheat. It drops down to zero if the sixth maund is purchased. If the seventh maund is also purchased, the marginal utility becomes negative—it gives disutility.

The table given above has been represented diagrammatically (Fig. 10) on page 101 to which the reader is referred. Along the OX axis we have measured the units of wheat and along the OY axis the unit of utility. Various points have been plotted and the utility curve AA' has been obtained by joining them. So long as the curve does not touch OX, it appears above the OX axis, which shows that its marginal utility is positive. It touches the OX axis at P where its marginal utility vanishes, i. e., it becomes zero. After that the curve goes below the OX axis showing that the marginal utility thereafter becomes negative.¹

Marginal Utility and Law of Diminishing Utility

In the statement of the law of diminishing utility, we were all along considering the *marginal utility*. According to that law, the utility of each successive unit goes on diminishing as consumption is continued. This "successive" unit is the "final" or the "marginal" unit at that particular moment. As such, we can otherwise describe the law as follows: *The marginal utility of a commodity goes on diminishing as its consumption increases, other things remaining the same.* The law of diminishing utility is sometimes called the *law of diminishing marginal utility* for the sake of clarity and precision.

¹The above is the example of a divisible commodity. We may also take the case of a cap which is an indivisible commodity. The following is the table of utilities derived from the use of cap:

Units of Caps			Utility Derived	
1	...	30	} Positive	
2	...	20		
3	...	10		
4	...	0		Zero
5	...	-10		Negative

For the diagrammatic representation of the above table, see p. 102, Fig. 11.

OA, AB, BC, CD and DE represent the various units and the rectangles standing over them show the utility due to each of them. The utility of the first three units is positive as the rectangles appear above OX. There is no rectangle with respect to the fourth unit, which shows that it does not yield any utility. Rectangle concerning the fifth unit goes down the line OX, showing that the utility becomes negative.

§ 3. TOTAL UTILITY

The sum total of the utilities of all the units of a commodity consumed at a particular time is known as Total Utility. If you eat five oranges at a time, the sum total of the utilities of all the five oranges will be the total utility of the oranges. If, of the five oranges consumed, the utility of the first unit of orange is 100, of the second 80, of the third 60, of the fourth 20, and of the fifth 10, then the total utility of oranges will be $(100+80+60+20+10=)$ 270.

As we consume more and more of a commodity, the total utility derived from its consumption goes on increasing; but this increase takes place at a diminishing rate (or less than proportionately) because of the operation of the law of diminishing utility. For instance, if the utility of the first unit of orange is 100, the utility of the second unit will be only 80; so that when two units are consumed, the total utility comes to 180 only, and not to 200 which is the corresponding proportionate figure.

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An important thing which you must have noticed in the above table is that the total utility goes on increasing just before the arrival of the point of satiety. When the point of satiety is reached, the total utility remains the same as before—nothing is added to it nor anything is deducted from it. After the point of satiety is reached, total utility begins to fall.²

²The reader should remember that total utility is not taken into account discussing the law of diminishing utility. The latter is concerned only marginal utility. It is the marginal utility of a commodity, which goes on diminishing as the stock of that commodity goes on increasing.

§ 4. TOTAL UTILITY AND MARGINAL UTILITY

It is interesting to learn the relation between marginal utility and total utility at this stage. So long as the point of satiety is not reached, marginal utility goes on diminishing; while the total utility goes on increasing though at a diminishing rate. At the point of satiety the marginal utility becomes zero; but the total utility becomes maximum, full satisfaction having been achieved. *Hence it is said that when marginal utility is zero, the total utility is at its maximum.* After the point of satiety is reached, the marginal utility becomes negative and the total utility begins to fall. If the reader refers to the tables and diagrams given above, he will be able to understand the relationship between total utility and marginal utility quite easily.

Marginal Utility, Total Utility and Demand

We have seen above that as we consume more and more units of a commodity, the marginal utility of that commodity goes on declining while total utility goes on increasing *up to a certain point.* During this time, what is the effect on demand?

It is clear that as consumption is continued, our demand for successive dose goes on declining. This is for an obvious reason which will become clear later on. Briefly, demand depends upon marginal utility; and as marginal utility declines, demand also goes down. As such as we consume more of a commodity, our demand for it goes on declining along with a decline in its marginal utility.³

Role in Determining Price

We have seen the distinction between marginal and total utility. When we discuss the problem of the determination of price under "Exchange", we will find that price depends upon (i) utility and (ii) cost. Which is *this* utility which determines price? Is it marginal utility or total utility? Obviously, it is the marginal utility. For the price that a man is prepared to offer per article is equal to the utility of the last unit he intends to purchase, *i. e.* marginal utility. Total utility is irrelevant in this connexion. This is really a problem of theory of value and will be discussed in detail under Exchange.⁴

TEST QUESTIONS

1. What is the relation between utility and want? How do you measure utility?
2. What do you mean by marginal utility and total utility? Give illustrations and diagrams to explain your points.

3. See Chapter 46, *Post.*

4. See Chapter 47, *Post.*

3. State the law of diminishing utility. Does it take into account total utility ?
4. When marginal utility is zero, the total utility is at its maximum. Show how.

EXAMINATION QUESTIONS

U. P. Int. Arts

1. Discuss with examples the relation between the marginal and total utility. (I. A. 1945)
2. When we consume more and more units of any commodity, (a) the marginal utility of that commodity diminishes, (b) total utility increases, and (c) our demand for that commodity decreases. Explain and illustrate the above with examples and diagrams. (I. A. 1944)

U. P. Int. Commerce

4. Explain the difference between marginal and total utility. Which of these helps in determining price ? State and explain. (I. Com., 1945)

U. P. Int. Ag.

5. Explain the following :—
 “When marginal utility is zero, total utility is at its maximum.” (1951)
6. Write note on total utility. (1950)

Rajputana Inter. Arts

7. Fully explain ‘marginal utility’ and ‘total utility’ and show how total utility is greatest when marginal utility is zero. (I. A. 1945)
8. Explain Marginal Utility and Total Utility. Clearly explain the Law of Diminishing Utility. (Rajputana, 1938)

Raj. Int. Com.

9. Write a note on Marginal Utility. (1948)

Patna Int. Com.

10. Write a note on Marginal Utility. (1949A)

Nagpur Int. Arts

11. What is the relation between (a) marginal utility and total utility, and (b) marginal utility and price. Illustrate your answer by a diagram or an example. (1947)

Nagpur Int. Com.

12. What is the relation between (a) marginal utility and total utility ; (b) marginal utility and price? Illustrate your answer by diagram or an example. (1947)

Sagar Int. Arts

13. Write a note on marginal utility. (1949 Supp.)

Sagar Int. Com.

14. Write a note on marginal and total utility. (1949 Supp.)

Benares Int. Arts

15. Distinguish between ‘marginal utility’ and ‘total utility’. Illustrate your answer by means of a table. (1948)

Benares Int. Com.

16. Explain fully the marginal utility. (1946)

Poona Int. Arts

17. What is utility. Distinguish between total, marginal and equi-marginal utility. (1949)

Poona Int. Com.

18. Distinguish between total utility and marginal utility. (1949)

CHAPTER 15

THE LAW OF EQUI-MARGINAL UTILITY

The utility analysis is 'nothing more than a schematic and very abstract account of this process of making these choices.—*Davenport*.

Man's income is ordinarily limited while his wants are innumerable. His income suffices to satisfy some, but not all, of his wants; and he tries to spend it in such a way as to obtain the greatest amount of pleasure and satisfaction. A man makes this endeavour almost instinctively and without any conscious effort on his part. This he does by arranging the various articles required by him in order of their utility; and by spending money on them in that order—the article affording the greatest utility (in return of a unit of money) coming first, and the one yielding the smallest utility (in return of the same unit of money) coming last. If a man spends his money strictly in this order, he will discover in the end that the utility of the last unit of money that he spends on various objects is, more or less, equal. It is called the *Law of Equi-marginal Utility*. It may be stated as follows: *Maximum satisfaction out of the expenditure of a given sum can be obtained if the utility derived from the last unit of money spent on each object of expenditure is, more or less, the same.*

Law of Substitution in Consumption. Another name of the law of equi-marginal utility is the law of substitution. Since according to this law, we *substitute* the article which gives us greater satisfaction for the one which gives us less satisfaction, this law is called *law of substitution*. But this sort of substitution is made under production, exchange, distribution, and public finance also. Consequently we call this law, *law of substitution in consumption*, in order to suggest that we are speaking of it in connection with consumption.

Illustration

Let us illustrate the law by a concrete example. Suppose a man goes to the market with Rs. 4 in his pocket, which he wants to spend on oranges, caps and milk; and the utility he expects to derive from each unit of four annas spent on the various heads is as follows:

4-anna Units	Utility derived from the 4-anna unit spent on		
	Oranges	Caps	Milk
1st	10	13	11
2nd	8	12	9
3rd	7	10	6
4th	5	8	5
5th	4	6	4
6th	3	4	2
7th	2	3	1

The purchaser will spend the first unit of four annas on the object which will give him the greatest satisfaction. In this case the cap is such an article—the utility of its first unit is 13 which is maximum. Guided by the same motive, he will spend the second unit on the second cap. The third unit will be spent by him on milk; and the fourth on oranges. In this way he will go on spending money. The following table indicates the order in which he will spend the four rupees he has got with him :

4-anns Units	Object of Expenditure	Utility derived
1st	Cap	13
2nd	Cap	12
3rd	Milk	11
4th	Orange	10
5th	Cap	10
6th	Milk	9
7th	Orange	8
8th	Cap	7
9th	Orange	6
10th	Cap	6
11th	Milk	5
12th	Orange	5
13th	Milk	4
14th	Orange	4
15th	Cap	4
16th	Milk	4
Total Utility derived from Rs. 4		122

The above table shows that he will spend 5 units of four annas on oranges, 6 on caps, and 5 on milk, and will in total derive 122 units of utility. This is the maximum satisfaction that he can obtain out of his expenditure. If he does not follow this scheme of expenditure, he will not be able to derive this much of total utility. For instance, if he spends 6 units on cap, only 3 units on

cap, only 3 units on oranges and the remaining 7 units on milk, the total utility he will derive will come to $(13+12+10+8+6+4+10+8+7+11+9+6+5+4+2+1)=116$ units only. Other variations may be tried by the reader; the result will be the same.

If you closely mark the first table, a remarkable fact will impress you at once, the fact that the utility derived from the last unit of money spent on each head is equal, *viz.*, 4. The expenditure of money on various heads in order of utility brings about this result. It has, therefore, been formulated that if we want to derive maximum satisfaction out of our expenditure, we should spend our money in such a way as to derive, more or less, the same satisfaction from the last unit of money spent on each head. This is the *Law of Equi-marginal Utility*.

Diagrammatic Representation

The Law of Equi-marginal Utility can be represented by a diagram. The above example can be represented as below :

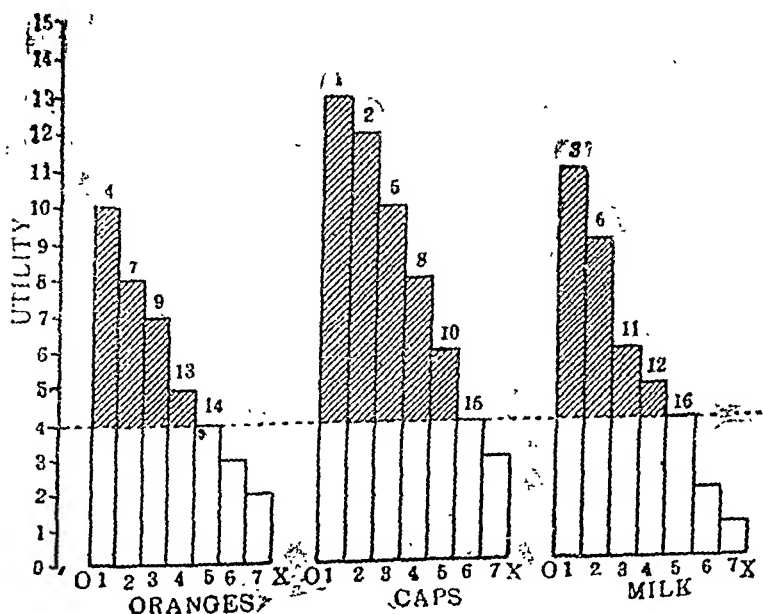


Fig. 14. Illustrating the Law of Equi-marginal Utility
(Figures above rectangles represent the order in which the 4-anna units are spent.)

The three sets of rectangles represent the utility derived from the expenditure of 4-annas on oranges, caps and milk respectively. OX axis has been divided in each case into equal parts representing

successive units of money spent on the particular item; and the rectangles standing over them represent the utility derived. The dotted line is the line of 4 annas utility. So many annas are spent on each item as the rectangles cut and touched by this line. The portion of rectangles standing above this line (shaded in the diagram) represents the Consumer's Surplus. This can be made maximum only if the above order of expenditure is followed.

Scope of the Law

The Law of Equi-marginal Utility as stated above applies not only to the expenditure of money but to several other cases as well. It can be made to apply to a commodity which has several uses. For instance, if we have 20 yards of cloth, we can use it for the preparation of shirts or underwears or *kurtas* or caps. The wise course will be to distribute cloth on these various uses in such a manner as to derive, more or less, the same utility from the last unit of cloth devoted to each item. By applying the law of equi-marginal utility to this case, we can derive maximum satisfaction.

This law also applies to the present and future uses of a commodity. We should distribute a commodity over the present and future uses in such a manner that the marginal utility from each use may be more or less the same. The remark applies to the allocation of income between expenditure and saving as well.

Due to the wide applicability of this law, Marshall states it in more general terms as follows : "If a person has a thing which can be put to several uses, he will distribute it among these uses in such a way that it has the same marginal utility."¹

Importance of the Law in Economics

The law of equi-marginal utility is very important in Consumption, as can be gathered from the above account. It is, however, not confined in its application to this branch of Economics alone. It is equally important in the field of Production where the producer is advised to substitute a cheaper factor of production for a dearer one. For instance, if machinery is cheaper than labour, it is substituted for the latter. It is known as the Law of Substitution in Production. In Exchange, again, purchasers purchase the articles which gives them greater satisfaction for the same price and thus try to follow this law. In the sphere of Distribution as well, the law has an important bearing. The theory of equal distribution of wealth which is the basis of socialistic and communistic movements, is fundamentally based on this law. Finally, in Public Finance it is the guiding principle in the matter of revenue and expenditure. The applications of the law in the different branches of

¹Marshall, *Principles of Economics*, p. 119.

cap, only 3 units on oranges and the remaining 7 units on milk, the total utility he will derive will come to $(13+12+10+8+6+4+10+8+7+11+9+6+5+4+2+1)=116$ units only. Other variations may be tried by the reader; the result will be the same.

If you closely mark the first table, a remarkable fact will impress you at once, the fact that the utility derived from the last unit of money spent on each head is equal, *viz.*, 4. The expenditure of money on various heads in order of utility brings about this result. It has, therefore, been formulated that if we want to derive maximum satisfaction out of our expenditure, we should spend our money in such a way as to derive, more or less, the same satisfaction from the last unit of money spent on each head. This is the *Law of Equi-marginal Utility*.

Diagrammatic Representation

The Law of Equi-marginal Utility can be represented by a diagram. The above example can be represented as below :

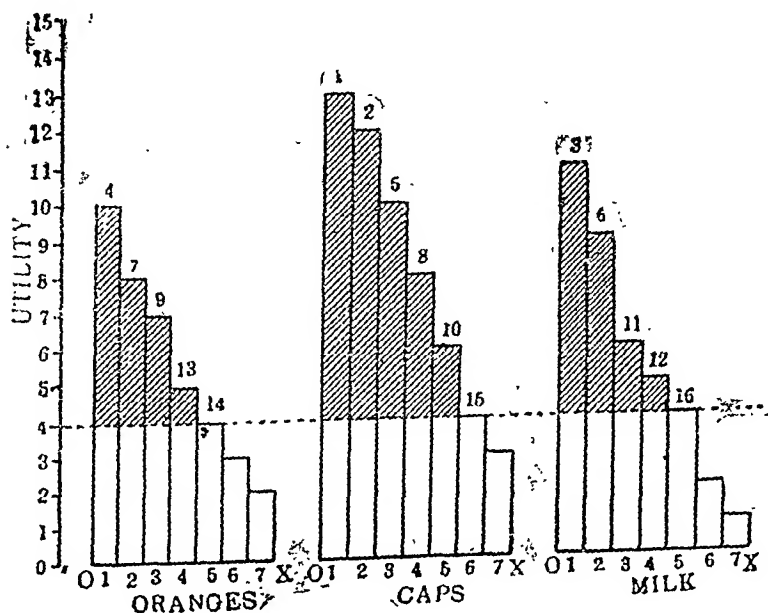


Fig. 14. Illustrating the Law of Equi-marginal Utility
(Figures above rectangles represent the order in which the 4-anna units are spent.)

The three sets of rectangles represent the utility derived from the expenditure of 4-annas on oranges, caps and milk respectively. OX axis has been divided in each case into equal parts representing

LUS

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in the nature of a real surplus

nsumption, we hope to
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ave lost. The surplus
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mer's surplus can be
*ined by a person from a
which he derives from it
ommodity.*"¹

from the consumption.
he would have paid
satisfaction he loses in
by the price he actually pays
such, the consumer's surplus is sometimes defined as
the excess of what a consumer would pay over what he actually pays.

Further Explanation

The concept of consumer's surplus can be explained by four definite statements which are joined to one another connectively. They are as follows: (1) That we derive greater utility from the earlier units and less from the latter units. (2) That the price that we pay for each unit remains the same, for the same price rules for each unit of a commodity in a market. (3) That we stop our purchases when the utility of the thing purchased equals the price paid for it. (4) Hence in the case of all the units, except

U.P. Int. Com.

6. State, explain and illustrate the Law of Equimarginal Utility. Discuss its practical importance. (1951)

Rajputana Int. Arts.

7. State and explain the Law of Equi-marginal Utility.. How does it guide the day-to-day expenditure of a person ? (1948)

Raj. Int. Com.

8. Explain the Law of Substitution in consumption and show how it is modified by the influence of custom or fashion. Give examples from India. (I. A. 1944).

8A. Mention the factors on what wants depend. Is it a fact that wants increase more rapidly than income ? If so, what steps would you take to balance the two ? (1946)

8B. Explain the principle of Equi-marginal Utility. (1948)

9. State and explain the law of Equimarginal Utility. How does this guide day-to-day expenditure of a person ? (I. Com. 1944)

Patna Int. Arts.

10. Explain with examples the principle of equimarginal utility. (1942)

Patna Int. Com.

11. Explain the principle of Equimarginal Utility. (1948S)

12. Explain the principle of substitution in relation to consumption and production. (I. Com., 1944, Supp.)

13. On what principles should a person regulate his expenditure in order to obtain the maximum satisfaction from it ? How far does custom or fashion stand in the way of following the principle ? (I. Com., 1942, Annual)

Nagpur Int. Arts.

14. Explain the Law of Equi-marginal Utility with the help of an example and diagram. (1949)

Sagar Int. Com.

15. Clearly define and explain the Law of Equimarginal Utility. (1950)

Bombay Int. Com.

16. (a) Explain the economic principle on which a person should spend his resources over different wants.

(b) If the last anna which a person spends on X gives him more satisfaction than the last anna he spends on Y, how should he readjust his expenditure ? (1949)

Other Examining Bodies

17. I have twenty-one laddus. I wish to distribute them among four persons A, B, C and D, in such a way as to get maximum utility. The marginal utilities of the laddus to each of the persons are noted below. State how I should proceed to distribute the laddus. How many will each obtain ? What will be their total utility ?

	1	2	3	4	5	6	7	8
A	15	13	11	9	7	5	3	1
B	20	16	13	10	8	4	1	—
C	13	10	7	4	2	1	—	—
D	25	21	18	15	12	8	6	3

(Punjab, I. A., 1937)

18. "Economic expenditure involves distributing the income in such a way as to secure the greatest possible amount of satisfaction." Explain and give examples. (Delhi, I. A. 1939)

CONSUMER'S SURPLUS

In the case of the first orange, he derives utility worth 30 annas, but he pays only one anna for it. The surplus utility in this case is 29 annas. In the case of second orange similarly consumer's surplus is 19 annas; and so on. The total surplus is 61 annas. This is the consumer's surplus.

Diagrammatic Representation

The concept of consumer's surplus illustrated in the above example is represented diagrammatically :

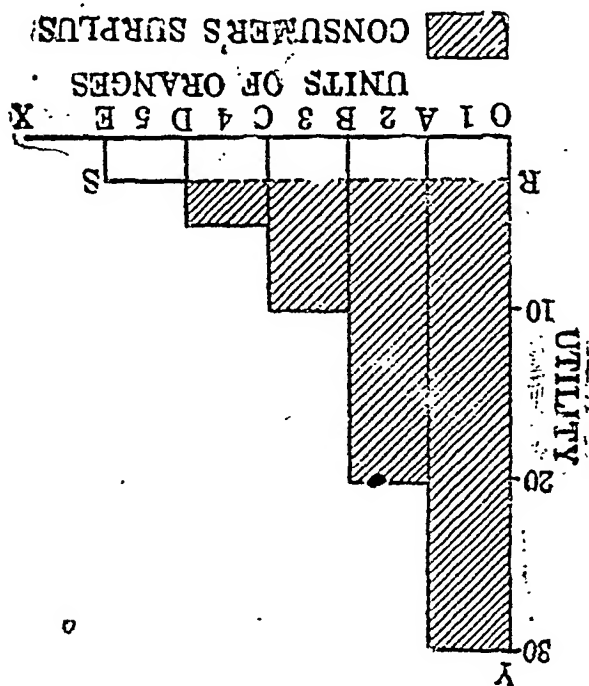


Fig. 15. Illustrating the Consumer's Surplus.
(The shaded portion represents consumer's surplus.)

In the diagram oranges are represented by OX axis and the utility along OY axis. OX axis is divided into OA, AB, BC, CD and DE, each division representing one orange in order. The rectangle standing over each of them represents the utility that each of them yields. The line RS measures the price per mango. The portion of each rectangle standing above this line represents the surplus utility. This portion is shaded in the diagram. This

the last one, a surplus of utility shows itself, which is called consumer's surplus.

When we purchase several units of a commodity, the utility of each unit (except the last) exceeds the utility of the last unit. The utility of the last unit purchased can be measured by the price paid per unit. It follows, therefore, that the utility of each unit of the commodity (except the marginal unit) is greater than the money paid for it; in other words, a purchaser derives a surplus utility from the purchase of all the units except the last one. This surplus utility is known as consumer's surplus.

Consumer's surplus is mathematically expressed as follows :

Consumer's Surplus = Total Utility - (Marginal Utility
× No. of Units Purchased)

or $C. S. = T. U. - (M. U. \times n).$

Where T. U. is Total Utility; M. U. is Marginal Utility; and n is the number of units purchased. This is the way in which we can measure consumer's surplus.

Illustration

Suppose a man goes to the market, with 5 annas in his pocket with a view to purchase some oranges. He thinks that the utility of the first orange will be equal to 30 annas; of the second, 20 annas; of the third, 10 annas; of the fourth, 5 annas; of the fifth, 1 anna; and of the sixth, zero. In the market the price per orange is, say, one anna per unit. Now he will purchase the first four oranges without any hitch because the utility of each of them exceeds one anna which he will have to pay per unit. He will also purchase the fifth orange: he will derive one anna worth of utility from it, which is also its price; but he will stop his purchases at this point. In this case, then, he will derive the consumer's surplus as shown in the following table :

No. of Units	Utility per Unit	Consumer's Surplus per Unit
I	30 annas	30-1=29 anna
II	20 do	20-1=19 "
III	10 do	10-1= 9 "
IV	5 do	5-1= 4 "
V	1 anna	1-1= 0 anna

Total Consumer's Surplus=61 annas.

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In the case of the first orange, he derives utility worth 30 annas, but he pays only one anna for it. The surplus utility in this case is 29 annas. In the case of second orange similarly consumer's surplus is 19 annas; and so on. The total surplus is 61 annas. This is the consumer's surplus.

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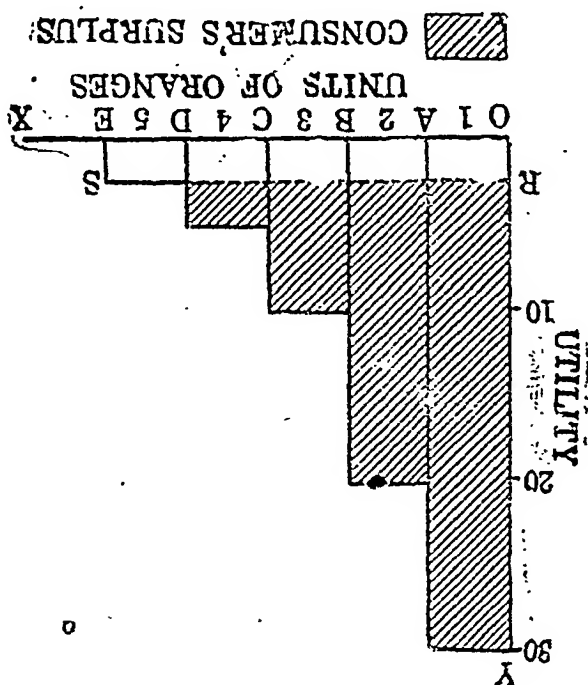


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(The shaded portion represents consumer's surplus.)

In the diagram oranges are represented by OX axis and the utility along OY axis. OX axis is divided into OA, AB, BC, CD and DE, each division representing one orange in order. The rectangle standing over each of them represents the utility that each of them yields. The line RS measures the price per mango. The portion of each rectangle standing above this line represents the surplus utility. This portion is shaded in the diagram.

entire shaded portion represents the consumer's surplus.² The marginal unit does not yield any consumer's surplus.

Marshall's Explanation

In explaining the idea of consumer's surplus, Marshall, who is the father of this concept, mentions that the price which a person pays for a thing can never exceed, and seldom comes up to, that which he will be willing to pay rather than go without it ; so that the gratification which he gets from its purchase generally exceeds that which he gives up in paying away its price and he thus derives from the purchase a surplus of satisfaction. The excess of price which he would be willing to pay rather than go without that thing over that which he actually pays, is the economic measure of this surplus satisfaction. It has some analogies to rent, but is perhaps best called consumer's surplus.

It is obvious that the consumer's surplus derived from some commodities is much greater than that from others. There are many comforts and luxuries of which the prices are very much below those which many people would pay rather than go entirely without them ; and which, therefore, afford very great consumer's

² If we substitute a divisible commodity, say milk, for oranges which are indivisible, our diagrammatic representation will be in the form of a curve as show here :

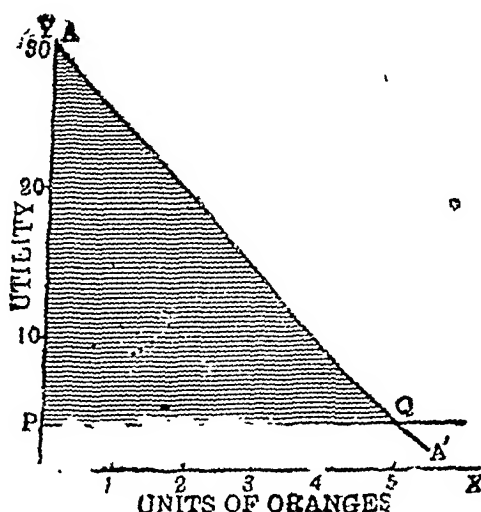


Fig. 61.

AA' curve is the utility curve. PQ line represents the price paid for five units of milk. The shaded area is the consumer's surplus.

surplus. Good instances are matches, salt, a one-anna newspaper, and a postage stamp.³

Importance of the Concept

The idea of consumer's surplus is of enormous importance in Economics, both from theoretical as well as practical points of view.

The theoretical importance of this concept is that it reveals what substantial benefits we derive from our surroundings or environments in daily life without being conscious of the same. When we purchase a newspaper, we pay only two annas for it; similarly we pay three pice for a match box. But hardly do we realise that the utility of these things is so great that we may be willing to pay, say, ten rupees for each of them rather than go without them. The consumer's surplus derived from the newspaper is, then, equal to Rs. 9-14-0 and that from match box to Rs. 9-15-3.

From the practical standpoint, its importance lies in showing the comparative satisfaction achieved by a particular class of persons in various countries of the world; or the comparative position of the various classes of people in the same country from the same viewpoint. For instance, an Indian may be getting only Rs. 100 p. m. in India, while he may be able to earn Rs. 200 in Australia; but it may be that Rs. 100 in India may afford him greater consumer's surplus than Rs. 200 in Australia. In such a case it will be wise for him to stay in India. This concept is also useful in finding out the effects of certain taxes on different classes of society. When a tax is levied, the price of the article generally rises. Since consumer's surplus is the excess of the price that a man will pay rather than go without it, over the price he actually pays for it; a tax equal to this entire surplus can be imposed. The loss of consumer's surplus due to the imposition of various taxes can be calculated; and the Finance Minister can then choose those taxes which inflict the least injury to the consumer's surplus in proportion to their yield. Again, the consumer's surplus derived from necessities is greater than that derived from articles of comforts or luxuries; and consequently heavier taxes can be levied on necessities than on comforts and luxuries from purely financial point of view.

3 Marshall, *Principles of Economics*, p. 124. This benefit, Marshall continues, may be called the benefit which he derives from his *opportunities*, or from his *environments*; or to recur to a word that was in common use a few generations ago from his *conjuncture*. *Ibid*, pp. 124-25.

TEST QUESTIONS

1. Explain the concept of "Consumer's Surplus". Illustrate it diagram-

2. In your opinion, is the importance of the concept of "Consumer's

EXAMINATION QUESTIONS

1. Explain Consumer's Surplus. Discuss the advantages of studying it.

2. Write a short note on Consumer's Surplus. (1947)

U. P. Int. Com.

3. What is meant by Consumer's Surplus? How does it arise and how is it measured? (1946)

4. Explain consumer's surplus, and discuss its importance. (I. Com., 1943)

Raj. Int. Arts

5. Write note on consumer's surplus. (1949)

6. Explain consumer's surplus. Discuss its relation to production and consumption. (1948)

7. What is consumer's surplus? How is it measured? Why does it arise? (I. A., 1941)

Patna Int. Arts

8. Explain the concept of consumer's surplus of satisfaction. Can you measure it? (1943) (1946A)

Patna Int. Com.

9. Explain the concept of consumer's surplus of satisfaction. (1949A)

10. Write a note on consumer's surplus. (1948A)

Bombay

20. Write a note on consumer's surplus. (1948)

21. How do you account for the fact that the most useful commodities such as bread, salt and water are very cheap? State your answer in terms of the general economic law on the subject. (Bombay, I. Com., 1939)

22. Examine the concept of consumer's surplus and discuss how far the surplus is substantial? What is the importance of this concept in Economics? (Bombay, I. A. 1940)

Poona Int. Arts

23. Write a note on 'consumer's surplus'. (1949)

Madras Int. Arts

24. Explain the doctrine of consumer's surplus. How far is it possible to measure this surplus in forms of money? What is its practical utility? (1950)

Travancore Int.

25. What is "consumer's surplus"? Explain it with the help of diagram. (1943)

THE STANDARD OF LIVING

Sanitation, in any accepted sense of the word, is practically non-existent. The public latrine is too often the bank of a river or the margin of a tank Unprotected wells and tanks, unswept village streets, close pent up windows excluding all ventilation—in such conditions does the average villager live, and yet observes a remarkably high standard of personal cleanliness and tidiness—*Linlithgow Report*.

After studying wants and utility, we may now turn our attention to the subject of *Standard of Living*. The quantity and quality of everything that a man consumes is reflected in his standard of living. Standard of living of a person is as such the index of his economic progress. On the same reasoning it can be shown that the standard of living of a nation is the true measure of its economic progress. It is, therefore, important to study the subject of standard of living.

§ 1. STANDARD OF LIVING

Meaning of Standard of Living

Everyone of us consumes certain articles of necessity, comfort and luxury. Throughout long use we become so much accustomed to them that we feel acute pain if we miss them. The articles of necessity, comfort and luxury, to which a man becomes habituated, constitute his standard of living. Otherwise expressed, *standard of living signifies the wants that one habitually satisfies*.

It follows from the above that the standard of living is, more or less, a matter of one's habit, and, therefore, does not change quickly and easily. Habit, the so-called second nature of man, does not change soon; and the standard of living of a person is more or less fixed. It is, however, comparatively easy to raise the standard of living than to lower it.

In our daily life we often hear and talk about standard of living. Usually this term is used in a comparative sense. We occasionally say that the standard of living of an Englishman is higher than that of an Indian, and the standard of an American is superior to that of an Englishman. A higher standard of living signifies the satisfaction of a larger number of, and more wisely selected, wants; whereas a lower standard of living signifies the satisfaction of few wants which may be unwisely chosen. Obviously, the higher standard of living

leads to a richer, fuller and materially happier life, while a lower standard of living results in poor, incomplete and materially inferior life.

Factors governing the Standard of Living

It is, therefore, the endeavour of every individual and nation to achieve a high standard of living. But what are the factors on which the standard of living depends? These factors are mainly two: (1) the amount of income spent, and (2) the wisdom with which it is spent. Other things being equal, a rich man is in a position to satisfy a larger number of wants than a poor man and, therefore, has a higher standard of living. Again, of the two persons who have equal incomes, the one who spends his money more wisely will have a higher standard of living than the other.

Evidently excellence or otherwise of the standard of living does not depend *only* on the income of a person; wisdom in expenditure is another important factor. *An expensive standard of living, in other words, is not necessarily a high standard of living.* An illustration may be given to explain this point. Suppose Atma Ram earns Rs. 200 per month whereas Babu Ram earns only Rs. 100 per month. Atma Ram may be a reckless fellow, spending money on thoughtless objects. He may be addicted to drinking, cinema and such other habits which may claim about half of his income or even more. He may spend the rest of his income in a similarly careless fashion—in taking food at hotels, on showy and costly clothes and in consuming cheap luxuries. The quality of his total consumption is obviously inferior; his standard of living will be called rather poor. Babu Ram, on the other hand, may be very wise in his expenditure. He may spend a fair part his income on healthy and nutritive diet, may live in an open house and may wear clean, tidy and durable clothes. He may also spend something on education and save a little for the “rainy day.” His standard of living is without doubt fairly high. In this illustration, then, though Atma Ram earns twice as much as Babu Ram, still the standard of living of latter is superior to that of the former; because Babu Ram spends his income very wisely, whereas Atma Ram spends it very carelessly. Therefore it is wrong to argue that a costly standard is necessarily a high standard. Unless other things are supposed to be equal, an expensive standard must not necessarily be a high standard.

Importance of a High Standard of Living

In modern times all of us try to maximise our *material welfare*; that is why the present age is often described as the “Age of Materialism.” True to the spirit of the times, individuals and

nations believe that a high standard of living is an ideal which should be tried to be achieved and striven for. Whenever any individual finds that he can increase his income and raise his standard of living in some way or the other, he generally tries to make use of the opportunity. Indeed, there are persons who do not even produce children so that they may be able to maintain a high standard of living. As has been wittily remarked, a new couple has to choose between a car and a baby; and often the car wins! What is true of an individual is also true of a nation. The modern nations try to harness all the natural resources like waterfalls, forests, mines, fisheries, etc., and use other methods to make their people richer than what they are. A nation believing in a high standard of living exploits its resources to the maximum degree in the productive operations, thus paving the way for the maximum consumption for its members. In fact, a higher or lower standard has become the index of an advanced or a backward nation respectively.

There are, however, certain thinkers who do not attach much value to material progress; and to whom the spiritual advancement, the advancement of soul and mind, is the only worthy ideal to be followed. Such people do not believe in a high standard of living. On the other hand, they stick to the principle of "simple living and high thinking." Mahatma Gandhi and Tolstoy were representative thinkers of this school. From an economic viewpoint, it can be stated by way of criticism that this attitude is not helpful for material progress and does not, therefore, receive the sanction of economists. Even from a broader standpoint this ideal becomes, at its best, merely theoretical. In these days of dire materialism when human blood is spilt more carelessly than water for achieving material objects, no country can hope to keep its head high unless it is materially strong. The younger generation of India does not, therefore, agree with the Gandhian ideal.

§ 2. STANDARD OF LIVING IN INDIA

A Quantitative Estimate

India is one of the poorest countries in the world; and, as may well be expected, the standard of living of its people is very low. The income *per capita* (i.e., per head) in this country shows the extent of prevailing poverty. The following table gives the estimates of the income per head given by different economists from time to time :—

Year for which estimate is made	Estimated by	Income per head in Rupees
1868	Dadabhoy Naoroji ...	20
1897-98	Lord Curzon ...	30
1911	Sir B. N. Sharma ...	50
1913-14	Wadia and Joshi ...	44
1913-14	Vakil and Muranjan ...	58
1921	Shah & Khambhatta ...	74
1925-26	V. K. R. V. Rao ...	76
1931	Findlay Shiras ...	63
1931-32	V. K. R. V. Rao ...	62
1937-38	Sir James Grigg ...	56
1946-47	Government of India	150
1948-49	National Income Committee	255

The difference in various estimates is due to the difference in the methods of calculation; but they all go to show that our standard of living is not high.

The smallness of income per head of the people of this country can be better realised when it is compared with the corresponding figures of the other countries of the world. The following table gives the comparative figures :

Country	Per Capita income	Year of the estimate
	£	
India ...	7	1931
Australia ...	98	1924
U. S. A. ...	89	1932
United Kingdom ...	76	1931
Germany ...	39	1925
Italy ...	24	1927
Japan ...	14	1925

The dire poverty of the people imposes a rigidly low standard of living. When a man has to support himself, his wife, his children and possibly his parents at less than Rs. 10 per month, the diet of the family will be inevitably ill-balanced and insufficient; the housing condition obviously unsatisfactory; clothing naturally bare and inadequate; and other wants necessarily starved. Sir John Megow aptly observes, "It is useless to tell people to drink more milk, or to eat more fruits and vegetables, unless we can show them how these articles can be obtained *in addition to* and not *instead of* part of the usual diet. Already many people cannot obtain enough rice and other bulky cheap foods to satisfy their hunger. To suggest expensive goods to these people would be just as reasonable as the remark attributed to Queen Marie Antoinette who, when told that the people of Paris were clamouring for bread, was said to have replied, 'If they have no bread, why don't they eat cake'".¹

A Qualitative Estimate

The poverty being so great and widespread, people of India are able to satisfy very few wants. Let us first take the case of necessities. *Necessaries for existence* are available to the majority of the people, though this want is not always fully satisfied. There are thousands of persons in the country who get food only once a day, and even that is very rough and poor.² Clothing is a luxury to many and it is only in winters that ragged and insufficient clothes appear on their person. The poor cannot afford to purchase woollen clothes and thank their stars if they have enough of the cotton ones. In the matter of housing in particular, special difficulty is faced. The villagers live in untidy mud hovels; while the labourers spend their lives in dirty and over-crowded quarters where their moral and material degradation is almost terrific. It is, indeed, a sad fact to confess that thousands of our countrymen do not get even adequate necessities for existence. So far as *conventional necessities* are concerned, they are almost compulsory in character in our custom-ridden country. It is seen that at times people purchase conventional necessities even at the cost of necessities for existence. Necessaries for existence and conventional necessities are the ones that are satisfied by an average Indian first and foremost. His resources are so slender that hardly anything is left to be spent on *necessaries for efficiency*. As Moreland

¹Sir John Megow, *Social Service*, p. 210.

²In several parts of northern India the industrial workers cannot afford anything more than the parched gram and coarse sugar for the midday fare, the evening meal generally consisting of wheat flour, cakes and lentils; vegetable-oil, ghee and fruits enter but little into their dietaries. In the rice-eating areas, as Madras, the position is not substantially different; a meal of cold rice (boiled the previous night) with salt for breakfast, rice and lentils for midday and repeated at night; with very few vegetables, practically no fruit, milk or ghee—Shiva Rao, *The Industrial Worker in India*, p. 67.

observes, "very large numbers are unable to provide for education or medical treatment while healthy dwelling houses are rare, specially in the towns. A large population of the artisans and labourers and even of small cultivators possess insufficient clothing for cold weather; while in many parts of the country the food of the labourers is not sufficient to enable them to do a full day's work".³

We now pass on from necessities to *comforts* and *luxuries*. An average Indian has now begun to consume certain articles of comfort and luxury, partly because of their cheapness and partly because of his increased knowledge which better means of communication, newspapers and urban habitation daily bring home to him. In fact, he is so much drawn to things like Japanese toys, creep-sole shoes and artificial silk that he cannot resist the temptation of purchasing them. His income being what it is very often he has to sacrifice the articles of efficiency for satisfying his fancy.

Our countrymen have a low standard of living not only because of their poverty but also because of their ignorance. They do not have the capacity to marshall their expenditure wisely, thus failing to derive even that satisfaction which can possibly be had.

Effects of Low Standard of Living

The inadequacy and injudiciousness of consumption of the people of India result in various evils. People who hardly get the bare necessities are bound to develop weak constitution. They remain inefficient at their occupation and earn low wages. What more, they fall an easy victim to the various minor diseases, which either prove fatal or render them weaker still. Children of such physically bankrupt persons are also very weak and inefficient. Many of them swell the figures of the infantile mortality, while the survivors are made worthless by the want of proper nourishment and sufficient clothes, of proper education and necessary training. When they grow to manhood, they join the rank of unskilled labourers earning just a few annas per day, if they luckily get a job somewhere. Their poverty leads to their inefficiency, and their inefficiency to their poverty. This is the vicious circle in which the masses of the country have been enveloped, and from which an escape must be made. It will, therefore, be instructive to study the causes of the low standard of living in India.

Causes of Low Standard of Living

(1) The most obvious and the most important cause of the low standard of living is the *poverty of the masses*. As shown above, people are so poor that they sometimes find it difficult even to keep their body and soul together.

³Moreland, *An Introduction to Economics*.

(2) *Illiteracy of the masses* is also an important cause. Wants increase with a spread of knowledge. The absence of literacy among the masses narrows down their vision to such a great extent that many of them find themselves perfectly satisfied. But there is a graver danger which illiteracy has brought about. This is the danger of unwise expenditure which is very often met with in our villages and industrial centres. Much expenditure on superficial festivities, on marriage and death and litigation, on drinking and cheap knick-knacks, can be curtailed with a salutary effect on the standard of living.

(3) *Customs and fashion* have a determining influence on the standard of living. A man's demand for goods depends upon the mode of life which custom and fashion in his class of society have made him accustomed to, and much less upon his individual tastes and liking. A professor and a businessman, having the same income, are bound to have different types of living. The professor will dress himself well, live in a decent house, have a good library and give himself up to occasional recreation like cinema-shows by way of mental diversion; while the businessman will devote a better part of his time, money and energy in promoting his business connections, himself leading a frugal life with as few diversions from business as possible.

(4) *The religious and social ideals* of the country also favour a life of frugality and simplicity, based on the principle of "simple living and high thinking." The emphasis on this principle by Mahatma Gandhi has increased the importance of this factor as an obstacle to a rise in the standard of living. Under the recent Congress regime, we found Congress Ministers travelling in third class, drinking tea for two pice per *kullarh* and riding in *ekkas* for one anna per passenger. The example thus set by them has had a lasting effect on certain sections of the people.

(6) *Absence of adequate and efficient means of communication and transport* and the lack of contact between the backward and progressive sections of the country are the other causes of the low standard of living in this country.

(6) *Physical factors* are also partly responsible for the low standard of living. Due to hot climate, people have few wants. The wants for clothes is not pressing since during the summers practically no clothes are necessary, while during the winters the warmth of the burning fire keeps the body active. Big houses are not essential, since courtyards inside or in front of the houses are quite comfortable in summer, while the accommodation of all the inmates in a few rooms in winter does not appear to be unpleasant.

How to Raise the Standard of Living?

Our standard of living can be raised only if we remove the basic causes of the low standard which have been pointed out above.

The removal of poverty is, in fact, the most difficult problem to solve. Our economic machinery will have to be entirely overhauled, and in many cases replaced, for only a bold step can break the vicious circle of poverty leading ultimately to greater poverty. Efforts should be made to remove the ignorance of the masses. Let the school-master be abroad, primary education be made compulsory, and arrangement be made for vocational training. Public health campaigns should also be carried on with a view to impress upon the people the necessity of sanitation and cleanliness. The masses should be made to realise the value of a materially rich and full and in their heart should be inspired the ray of hope, the herald of the sun of happiness.

Standard of Living in the Post-War Period

The Second Great War has ushered in a new era in the thoughts, aspirations and hopes of the people all over the world. Plans of post-war reconstruction and development have been made in almost every country of the world and everywhere the key-note of such plans is raising the standard of living of the masses. Progressive and powerful countries like U. S. A. and U. K. also believe that their own salvation in the post-war period lies in improving the standard of living of the people of backward countries; and countries like India may hope for something definite in this direction. Apart from it, "Eight Industrialists," of our country published a *Plan for the Economic Development of India* a few years back, which envisaged the raising of our standard by at least two-fold within 15 years. The reception received by the plan in Governmental and non-Governmental circles augured well for the future. This was followed by the People's Plan, the Gandhian Plan and the Five-year Economic Plan of the Government of India. Recently the Planning Commission has published a *Draft Report*; and its final report is about to be released. The more important matter than framing a plan is to put into execution; and it is in the latter direction that considerable difficulties exist in India.

TEST QUESTIONS

1. What is meant by 'standard of living'? What are the factors which govern it? Show the importance of a high standard of living.
2. Write an essay on 'The Standard of Living in India.'
3. Has your standard of living been rising? Discuss fully.

EXAMINATION QUESTIONS

U. P., Int. Com.

1. How have social customs affected the economic condition of Indian people? Suggest remedies to remove some of the worst evils. (U. P. I. Com, 1948).
2. Discuss intelligently the influence of climate and customs on the standard of living. (U. P. Com. 1933).

(2) *Illiteracy of the masses* is also an important cause. Wants increase with a spread of knowledge. The absence of literacy among the masses narrows down their vision to such a great extent that many of them find themselves perfectly satisfied. But there is a graver danger which illiteracy has brought about. This is the danger of unwise expenditure which is very often met with in our villages and industrial centres. Much expenditure on superficial festivities, on marriage and death and litigation, on drinking and cheap knick-knacks, can be curtailed with a salutary effect on the standard of living.

(3) *Customs and fashion* have a determining influence on the standard of living. A man's demand for goods depends upon the mode of life which custom and fashion in his class of society have made him accustomed to, and much less upon his individual tastes and liking. A professor and a businessman, having the same income, are bound to have different types of living. The professor will dress himself well, live in a decent house, have a good library and give himself up to occasional recreation like cinema-shows by way of mental diversion; while the businessman will devote a better part of his time, money and energy in promoting his business connections, himself leading a frugal life with as few diversions from business as possible.

(4) *The religious and social ideals* of the country also favour a life of frugality and simplicity, based on the principle of "simple living and high thinking." The emphasis on this principle by Mahatma Gandhi has increased the importance of this factor as an obstacle to a rise in the standard of living. Under the recent Congress regime, we found Congress Ministers travelling in third class, drinking tea for two pice per *kullarh* and riding in *ekkas* for one anna per passenger. The example thus set by them has had a lasting effect on certain sections of the people.

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How to Raise the Standard of Living?

Our standard of living can be raised only if we remove the basic causes of the low standard which have been pointed out above.

BUDGET

No. of members.....(men, women and children, with their ages, to be mentioned).

Annual income.....

Items of expenditure	Quantity consumed			Amount spent		Percentage of expenditure to total income.	Remarks.
	Quality.	In a week or month	Total quantity consumed.	Price per unit.	Total amount		

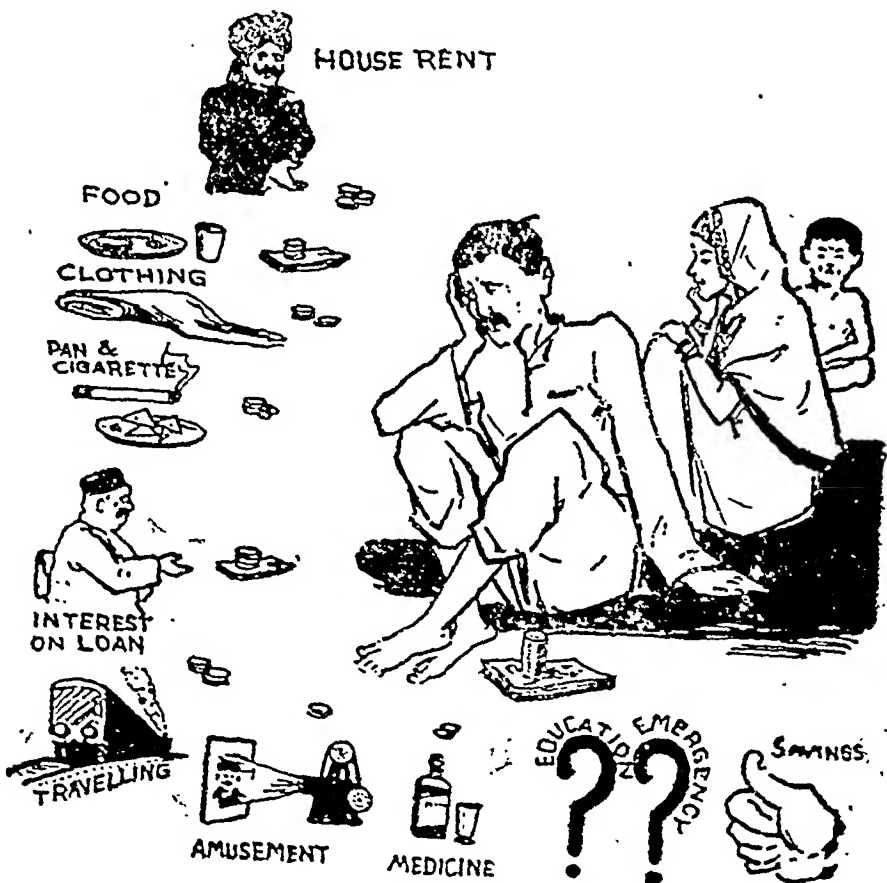


Fig. 17. Illustrating the expenditure of a family.

CHAPTER 18

FAMILY BUDGETS

There is perhaps no branch of Economics in which intensive work yields a large harvest of suggestive returns than the study of statistics of consumption. Any one may enter this field by making a study of the expenditures of the family group to which he himself belongs and by persuading friends to keep budgets of their expenditures in accordance with some simple but uniform plan—*Seager*.

§ 1. INTRODUCTION

In a preceding chapter we had discussed how a person can derive the maximum advantage out of his expenditure by following the law of equi-marginal utility. The pursuit of the said law becomes convenient and easy if proper family budgets are maintained; and variations are effected in the nature of expenditure as suggested by the budgets. Family budgets have also other important advantages of considerable and vital economic significance, all of which go to make their study an important subject in Economics. They have been collected in various countries of the world and valuable information has been drawn from them from time to time.

Meaning of Family Budget

A family budget, it may be stated, consists of a detailed description of the income and expenditure of a family, and has reference to a particular period, a month or a year. It can, therefore, be defined as *a detailed statement of the estimate of income and expenditure of a family, relating to a particular period.*

Form and Contents of a Family Budget

A family budget begins with a mention of the members of the family in question and the annual (or monthly, as the case may be) income thereof. Thereafter are given, in a classified form, the various groups and items of expenditure. The total quantity of each commodity consumed, the price paid, the total amount spent, the percentage that the amount spent on each head bears to the total income, and the remarks, if any, are all given in detail. A rough form follows here :

BUDGET

No. of members.....(men, women and children, with their ages, to be mentioned).

Annual income.....

Items of expenditure	Quantity consumed			Amount spent		Percentage of expenditure to total income.	Remarks.
	Quality.	In a week or month	Total quantity consumed.	Price per unit.	Total amount		

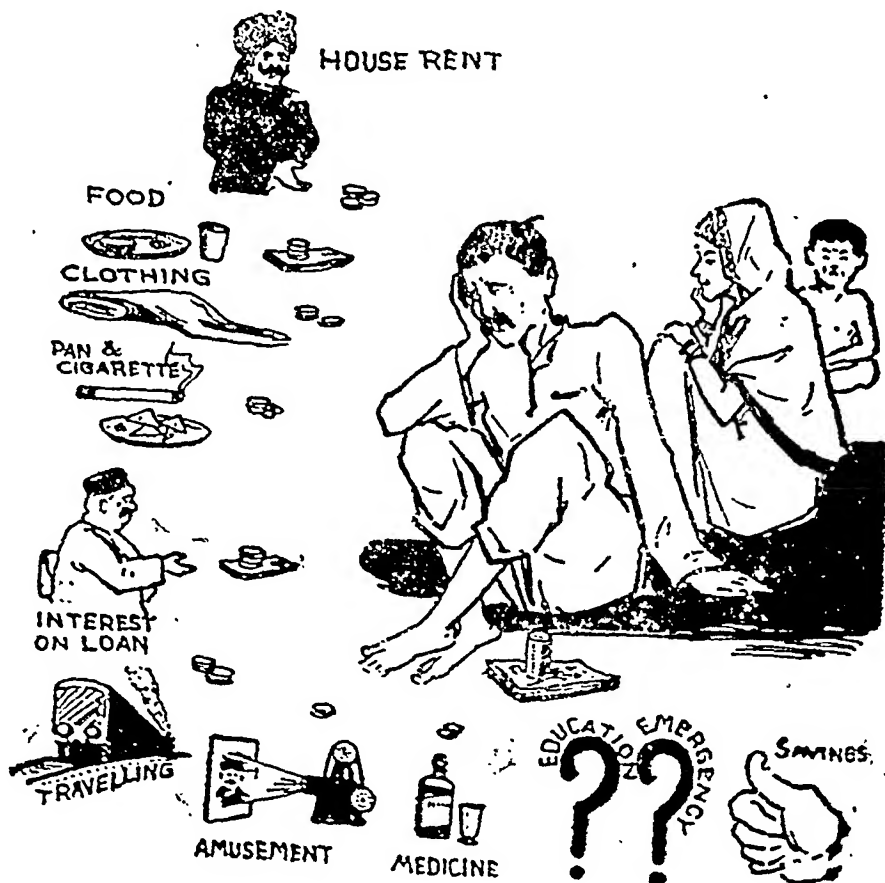


Fig. 17. Illustrating the expenditure of a family.

The most important group of items of expenditure in a family budget is *Food*. The total amount of income spent on food varies from about 50 per cent to about 60 per cent. Clothing is the next important group; about 18 per cent of one's income is spent on this object. *Lodging* claims 12 per cent and *Heat and Light* another 5 per cent of one's income. Education, taxation, health and servants are other items of expenditure.

§ 2. ENGEL'S LAW OF CONSUMPTION

Important studies of family budgets have been carried on in various countries of the world. Probably the most important of such studies was made by Dr. Engel in the year 1857 in Saxony (Germany). He divided the families living in Saxony into three classes: the labour class, the middle class and the well-to-do class. The main items of expenditure were classified by him into the following groups: (i) Food, (ii) Clothing, (iii) Lodging; (iv) Heat and Light, and (v) Education, Health and Servants. He tried to find out the percentage of income spent by each class of families on the various heads. The result of his investigation is presented in the following table:¹

Items of expenditure	Percentage of its income spent by—		
	Labour class family	Middle class family	Well-to-do class family
1. Food ...	60	55	50
2. Clothing ...	18	18	18
3. Lodging ...	12	12	12
4. Heat and light ...	5	5	5
5. Education, health and servants, etc. ...	5	10	15
Total ...	100	100	100

As is clear from the table, Engel discovered that, as the income increases—

- (1) The percentage of it spent on food decreases;

- (2) The percentage of it spent on clothing, lodging and heat and light remains the same ;
- (3) The percentage of it spent on education, health and servants, etc., increases.

Briefly, it may be stated that *as the income of a family increases, the percentage of income spent on the food decreases, that spent on clothing, lodging, heat and light remains unchanged and that spent on education, health, servants, etc., increases.* This is known as the *Engel's Law of Consumption.*

Diagrammatic Representation

In Fig. 18 on p. 140, the height of the rectangles shows the percentage of income ; and their width, the amount of income. The first rectangle is the widest and represents the richest family ; the last rectangle is the least wide and represents the poorest family.

The amount spent on food by the rich family constitutes only 50 per cent for its income ; that spent by middle class family,

occupies a unique position in Economics, it may be produced below—

Items of expenditure	Proportions of the expenditure of the family of—		
	1	2	3
	Workman with an income of 45% to 60% a year	Workman with an income of 90% to 120%	Middle class person with an income of 150% to 200%
1. Food only ...	62.0 p. c.	55.0 p. c.	50.0 p. c.
2. Clothing ...	16.0 p. c.	18.0 p. c.	18.0 p. c.
3. Lodging ...	12.0 p. c.	12.0 p. c.	12.0 p. c.
4. Light & fuel	5.0 p. c.	5.0 p. c.	5.0 p. c.
5. Education ...	2.0 p. c.	3.5 p. c.	5.5 p. c.
6. Legal protection. ...	1.0 p. c.	2.0 p. c.	3.0 p. c.
7. Care of health ...	1.0 p. c.	2.0 p. c.	3.0 p. c.
8. Comfort and recreation.	1.0 p. c.	2.5 p. c.	3.5 p. c.
Total ...	100.0 p. c.	100.0 p. c.	100.0 p. c.

55 per cent ; while that spent by the poor family, 60 per cent. The bars are marked likewise. But this does not mean that the total amount of money spent by the rich family on food is least ; and that spent by the poorest family, the biggest. It cannot be, for though the rich family spends only 50 per cent of its income on food, that income is very large ; as such, this amount is larger than the amount spent by the poor family on the same object. This point can be easily understood from the diagram. The total amount spent on various heads is represented by the divisions of rectangles ; and the first division of the rectangles, representing the amount spent on food, is biggest in the case of the rich family. Similar considerations apply to other items of expenditure.

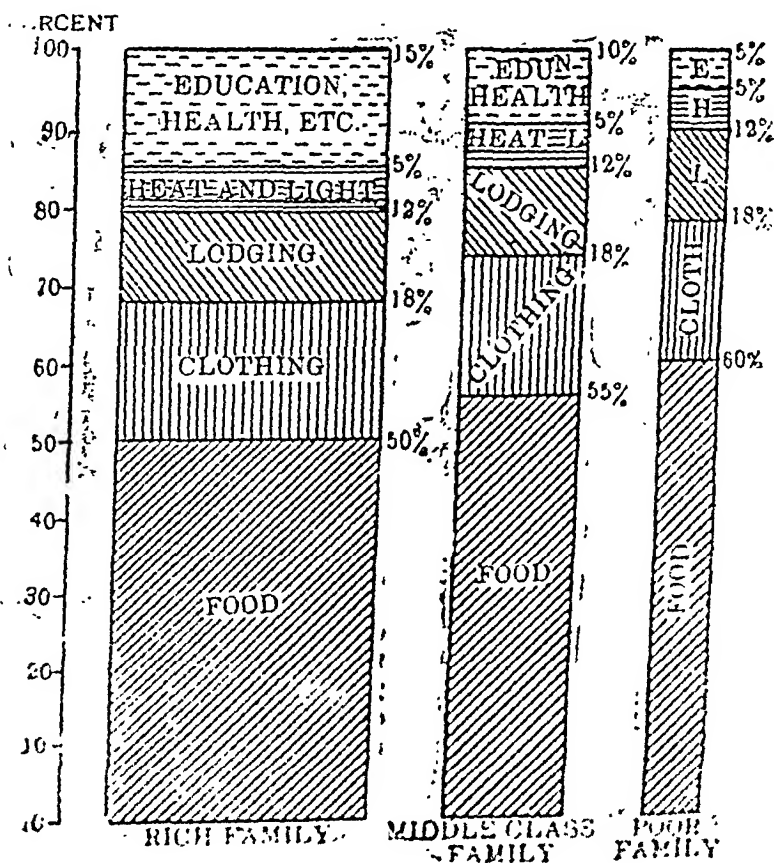


Fig. [10]. Illustrating the [Engel's Law].

§ 3. THE IMPORTANCE OF FAMILY BUDGETS

The preparation and the study of family budgets is of supreme importance in Economics. Not only in the field of Consumption, but also in the sphere of Production, Exchange and Distribution, their importance is being realised with increasing force. Family budgets have profound importance to householders, economists, statesmen and social reformers alike.

Importance to Householders

The family budgets help a householder to follow the principle of equi-marginal utility. If he has no family budget, he might spend his income unwisely. For instance, he might spend its major part in such recreations and luxuries as cinema shows, crossword puzzles and other things of like description with the result that adequate amount may not be left for taking care of other important items of expenditure. But if he keeps a family budget, he will at once detect that there is a big amount standing against the item of recreation which can be curtailed with advantage; and if that sum is spent on other useful objects, he will gain in total utility.

Not only this, it also enables him to distribute his income proportionately between expenditure and saving. He may be spending money so recklessly as to leave very little for contingencies and old age; or he might be saving so much as to lead a life of hardship and misery. If he has a family budget before him, the picture of his present and future requirements will come up before him and he will be in a position to distribute money prudently between expenditure and saving. In these ways and others, family budgets help householders to derive maximum satisfaction out of their income.

Importance to Economists

Family budgets are useful not only to householders but also to economists inasmuch as an important portion of their study is founded on the bed-rock of family budgets.

(1) The study of family budgets gives an idea about the economic position of the people of a country. It gives definite figures of the quantity and quality of commodities consumed by them and shows the stage of their mental progress. Family budgets enable economists to compare the economic position of different classes of people in the society. They give an accurate idea of the disparity in the financial standing of the poor and the rich and go to make a case for an equitable distribution of wealth and income. Sometimes this comparative study takes into account the economic conditions of the people of two or more than two countries, which bears valuable fruits at times. Comparison of the conditions of the working class in America, England and Japan with that of the working class in India, at the present moment, leads to many important conclusions

regarding the connection of income to efficiency, welfare and other sets of economic relationship.

(2) A study of family budgets of a class of persons of a country enables an economist to find out whether the amount is being spent by that class of persons wisely or not. If not, where does the defect lie and how can the people be made to derive greater benefit from the expenditure.

(3) Family budgets also show the taxable capacity of different families. They show how much amount is spent on each head, whether that distribution of expenditure is prudent or reckless, what is the amount of savings, etc. Such knowledge is useful in deciding the magnitude of taxes.

(4) Family budgets provide the raw material for the construction of various index numbers, as for example, the cost of living index numbers. The latter index numbers give a correct idea of the cost of living of, say labourers; and suggest the minimum wage which must reasonably be given to them. They may, thus, go a long way in settling labour disputes over the wage question and prevent much loss resulting from unnecessary strikes and lock-outs.

(5) Family budgets are also important because certain economic laws are based on their study. The Engel's Law of Consumption, discussed above, is one instance. It is just possible that further study of family budgets may result in the formulation of similar other laws.

Importance to Social Reformers and Statesmen

Social reformers derive much inspiration and lessons from family budgets. To give only one instance, they discover from family budgets the extent of richness in the country, the extent of poverty in it, and the extent of difference in the position of the rich and the poor. The budgets may also give an idea of the causes and nature of the social degradation and misery of the masses and the superficial and plentiful existence of the limited few. They may even make it the basis of a movement in favour of equitable distribution of wealth and income. Similarly, statesmen can make it the object of their activities and bring about a reform in a decisive fashion through taxation and other legislative measures.

committees like the Labour Committee, etc. Some important investigations have also been done independently. Of all the studies, we shall like to make a mention of those of Major Jack and Professor G. Findlay Shirras.

Major Jack's Study

Major Jack studied the family budgets of the people living in Faridpur district in Bengal. This was the pioneer work and is considered to be contribution to Indian Economics. The line of study followed by Jack was different from that of Engel, but on the whole it confirms Engel's conclusions. For instance, Jack found that the agriculturists living in comfort spend about 58 per cent of their income on food while those who live in poverty spend 60 per cent of their income on this item. The difference between the percentage is not wide because the financial position of the agriculturists living in comfort does not materially differ, according to Major Jack's classification, from the position of those living in poverty.

Findlay Shirras' Study

Findlay Shirras collected the budgets of working class families of Bombay in the years 1921-22. He found that the workers who earned less than Rs. 30 per month spent about 60 per cent of their income on food; while the workers who earned about Rs. 80 to Rs. 90 per month spent about 53 per cent of their income on this item. As such, the percentage of income spent on food decreases as income increases. His study also confirms the truth of the Engel's Law.

These studies are only preliminary. There is a rich, varied and virgin field for other similar studies. It is hoped that in near future, this gulf in the study of Indian economic problems will be bridged over, properly and efficiently.

Studies During and After War

The War gave a great stimulus to the study of family budgets in this country. The most important work has been done by the Labour Ministry of the Government of India by opening a separate section for collecting family budgets of workers and constructing Cost of Living Index Number on a very large scale. Studies relating to middle class people have been conducted by the Bombay Gujrati Association, Punjab Board of Economic Enquiry and U. P. Government. In many war-time studies, the need of studying family budgets has been repeatedly realised and efforts have been made in this direction. The lessons learnt during the war are being reinforced by the talk of post-war development of India. We are definite that in the post-war period, a study of family budgets would acquire a new importance and stimulus.

(2) You should also be clear as to *the unit of investigation*. If you want to collect family budgets of cultivators, then your unit of investigation is the cultivator and you must define exactly who a cultivator is. Is a man who carries on only agriculture and no other business a cultivator? Or a man who carries on agriculture along with some other occupation is also a cultivator? Difficulties may arise in apparently simple cases. For instance, if you want to collect family budgets of married and unmarried persons, and if you have not defined a married and unmarried person skilfully, you may not know in which class widows should be put. Once you have defined the unit of investigation, you should stick to it faithfully throughout the course of your inquiry.

(3) You should also prepare *a list of all the questions* which you want to put to the informant. You should not forget that your informant is usually an illiterate and uneducated person and can be of help to you only if you can come down to the level of his mental development. Your questions should be as simple as possible, in thought and expression, so that their meaning can be grasped with little or no difficulty. The questions should also be few so that you may not burden the informant. They should not, moreover, be personal and inquisitive lest they might become displeasing. It is advisable to divide the questions in various groups and arrange them in a logical and connected manner.

Instructions for Field Work

not to give too much time for a reply lest the informant might cook a story out of his imagination. If you feel that the reply is careless or incorrect, you may cross-examine the informant; but the cross-examination should be very cautious. In such a case you may gather the same information from some third parties also, and if you find that the information from independent sources tallies with that given by the direct party, the correctness of your material is definitely confirmed.

After you have made inquiries and have come back from your investigation, you should put down the information on paper. Do not try to write out these things before the informant. Whatever notes you make after the investigation, may be logically written and presented in proper form later.

Questionnaire and Blank Form

A questionnaire is a list of questions. Sometimes the persons from whom information is to be gathered are educated and can be expected to send dependable answers to relevant questions. In such a case a *Questionnaire* is prepared and sent to them with the request to send their replies.

When the questions to be asked are simple and little information is required, a list of questions is drawn up, and some space is left after each question where reply to that question is to be written. Such a form is known as as a *Blank Form*.

The difference between a questionnaire and a blank form is that the former contains many questions requiring lengthy answers while the latter contains only few questions which can be answered in short; hence a questionnaire does not have the space where answers can be written—they have to be written on a separate paper—while a blank form does have such space.

§ 2. PREPARATION OF FAMILY BUDGETS

After all the information is gathered, you have to prepare a family budget in a standardized and proper form. The actual form of the budget should be such that the entire basic material is systematically arranged and all the important calculations may appear in it. You should clearly show how the percentage expenditure on a particular head has been arrived at.

§ 3. DIAGRAMMATIC REPRESENTATION

The budgets can be diagrammatically represented. The usual diagram for this purpose is a rectangle. The vertical side of the

rectangle is made to measure the percentage expenditure, so that the total length of the rectangle is taken to be equal to 100. Then according to the percentage of income spent on various heads, rectangle is divided into various subdivisions, each subdivision representing the expenditure on a particular head. These subdivisions are coloured or shaded or made distinct by different kinds of hatching.

A complex diagram is sometimes drawn when the length of the rectangle is made to measure the percentage of income, while the width measures the actual amount of income. This diagram is usually made use of for comparative purposes. For an illustration, see Chapter 18, p. 140, *ante*.

§ 4. FORM OF A FAMILY BUDGET

We have discussed above the manner in which information regarding family budgets should be collected and presented. Now we will describe the form of a family budget.

A family budget should be prepared in such a form that all the information is shown in it systematically and clearly. The first thing that should be written is the name of the head of the family, the number of members of his family, the amount of his income, etc. After that, details about expenditure are given in the shape of a table. All the items of expenditure are divided into a number of Major Heads. For instance, the major heads can be as follows : (i) Food, (ii) Clothing, (iii) House, (iv) Light, Fuel, etc., (v) Health and Education, (vi) Other Expenses, and (vii) Savings and Investment. Under each major head are mentioned the commodities falling in that category. Against each commodity, the quantity purchased, the rate at which it was purchased, and the total amount spent on it, are written. The total amount spent on each major head is separately totalled up.

In the end, a separate table is prepared showing the amount spent on each major head; and the proportion of this amount to the total income is also expressed as a percentage.

FORM OF A FAMILY BUDGET

Name and Address of the Head of Family.....

Occupation.....

Number of Members in the Family :

Men.....

Women.....

Children.....

Total

Monthly Income.....

Period.....

Date of Enquiry.....

Heads of Expenditure	Quantity	Rate	Amount Spent	Remarks
I. Food				
(a) <i>Grain and Pulses</i>				
Wheat ...				
Rice ...				
Bajra, Jwar, Maize, Etc. ...				
Gram ...				
Arhar ...				
Urd, Moong and Masur ...				
(b) <i>Vegetables and Fruits</i>				
Vegetables ...				
Fruits ...				
(c) <i>Sundries</i>				
Ghee ...				
Oil ...				
Sugar ...				
Gur ...				
Salt ...				
Spices ...				
Tea ...				
Milk ...				
Others ...				
Total ...				

Heads of Expenditure	Quantity	Rate	Amount Spent	Remarks
II. Clothing				
Shirts	...			
Kurtas	...			
Dhotis	...			
Pyjamas	...			
Pants	...			
Coats	...			
Blouses	...			
Salukas	...			
Caps	...			
Bedsheets	...			
Towels	...			
Baniyans	...			
Underwears	...			
Shoes	...			
Total	...			
III. House				
Rent	...			
Repairs	...			
Taxes	...			
Total	...			
IV. Light, Fuel, Etc.				
Fuel	...			
Kerosene Oil	...			
Electricity	...			
Match Boxes	...			
Coal	...			
Total	...			

Heads of Expenditure	Quantity	Rate	Amount Spent	Remarks
V. Health and Education				
Medicines ...				
School Fees ...				
Books ...				
Stationery ...				
Total ...				
VI. Miscellaneous				
(a) Social and Religious Expenses...				
(b) Recreation ...				
(c) Services —				
Washerman ...				
Barber ...				
Sweeper ...				
Servants ...				
(d) Other Expenses—				
Pan, Cigarettes, Etc. ...				
Suparis ...				
Correspondence...				
Travel ...				
Total ...				
VII. Savings and Investments				

PERCENTAGE OF TOTAL INCOME SPENT ON MAJOR HEADS

Heads of Expenditure	Amount Spent	Percentage of Total
I. Food		
II. Clothing		
III. House		
IV. Light, Fuel, Etc.		
V. Health and Education		
VI. Miscellaneous		
VII. Savings and Investments		
Total		

§ 5. FAMILY BUDGET OF A MIDDLE CLASS FAMILY

Name and Address of the Head of Family—Ram Das Sinha, Colonelganj, Allahabad.

Occupation—Head Clerk, Caxton Co., Ltd., Allahabad.

Number of Members in the Family—2 men, 2 women, 2 children—Total 6.

Monthly Income—Rs. 200.

Period—1 month (April, 1952).

Date of Enquiry—May 18, 1952.

Heads of Expenditure	Quantity.	Rate	Amount Spent	Remarks
I. Food			Rs. as.	
<i>(a) Cereals and Pulses—</i>				
Wheat ...	30 srs.	3 srs. per rupee	10 0	
Rice ...	15 „	2 „ „ „	7 8	
Joar, Bajra ...	6 „	4 „ „ „	1 8	
Gram ...	10½ „	3½ „ „ „	3 0	
Pulses ...	10 „	2 „ „ „	5 0	
<i>(b) Vegetables & Fruits—</i>				
Vegetables ...	30 „	4 as. per sr.	7 8	
Fruits ...	—	—	3 8	
<i>(c) Sundries—</i>				
Milk ...	20 „	2 srs. per rupee	10 0	
Ghee ...	6 „	Rs. 4 per sr.	24 0	
Sugar ...	5 „	Rs. 1 „ „	5 0	
Salt ...	4 „	4 as. „ „	1 0	
Spices ...	1 „	Rs. 2 „ „	2 0	
Tea ...	1 lb.	Rs. 2 per lb.	2 0	
Total ...			82 0	
II. Clothing				
Shirts ...	1	—	5 0	
Dhoties ...	2	—	16 0	
Blouses ...	1	—	2 0	
Children's Clothes...	2	—	3 0	
Baniyan ...	1	—	1 8	
Towels ...	2	—	2 8	
Chappals ...	1	—	2 0	
Total ...			32 0	
III. House				
Rent ...			12 0	
IV. Light, Fuel, etc.				
Fuel ...	3 md.	Rs. 2 per md.	6 0	

Heads of Expenditure	Quantity	Rate	Amount Spent	Remarks
			Rs. as.	
Electricity ...	—	—	2 4	
Coal ...	10 srs.	Rs. 7 per md.	1 12	
Total ...			10 0	
V. Health and Education				
Doctor's Fees ...	—	—	4 0	
Medicines ...	—	—	4 0	
School Fees ...	—	—	5 0	
Private Tutor ...	—	—	5 0	
Books, etc. ...	—	—	2 4	
Newspaper ...	—	—	3 12	
Total ...			24 0	
VI. Miscellaneous				
(a) Social (Feasts, etc.) ...	—	—	3 0	
(b) Entertainment (Cinema) ...	—	—	6 4	
(c) Services—				
Dhobi ...	—	—	4 4	
Barber ...	—	—	1 0	
Sweeper ...	—	—	1 0	
(d) Other Expenses—				
Pan, Cigarettes, etc. ...	—	—	9 0	
Correspondence... ..	—	—	1 8	
Others ...	—	—	4 0	
Total ...	—	—	30 0	
VII. Savings and Investments				
			10 0	

PERCENTAGES OF TOTAL INCOME SPENT ON CHIEF HEADS

				Amount Spent	Percentage of Total
				Rs. as.	
I. Food	...	...	...	82 0	41
II. Clothing	...	...	...	32 0	16
III. House	...	...	...	12 0	6
IV. Light, Fuel, etc.	...	...	...	10 0	5
V. Health and Education	...	...	...	24 0	12
VI. Miscellaneous	...	...	...	30 0	15
VII. Savings and Investments	...	...	...	10 0	5
				200 0	100

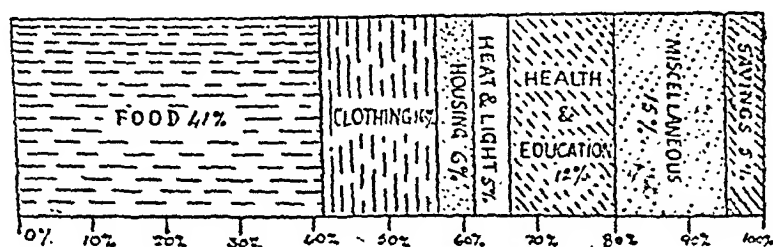


Fig. 20. Diagrammatic Representation of the above Budget.

§ 6. FAMILY BUDGET OF AN ARTISAN (POOR MAN)

Name and Address—Mahabir, Kydganj, Allahabad.

Occupation—Peon, Kitab Mahal, Allahabad.

Number of Members in the Family—1 man, 1 woman, 4 children—total 6.

Monthly income—Rs. 35.

Period—One month (May, 1952)

Date of Enquiry—June 9, 1952.

Heads of Expenditure	Quantity	Rate	Amount Spent	Remarks
			Rs. a.	
I. Food				
<i>(a) Cereals and Pulses—</i>				
Wheat ...	6 srs.	3 srs. per rupee	2 0	
Rice ...	20 "	2½ " " "	8 0	
Joar, Bajra, etc....	20 "	4 " " "	5 0	
Gram ...	7 "	3½ " " "	2 0	
Pulses ...	5 "	2 " " "	2 8	
<i>(b) Vegetables & Fruits—</i>				
Vegetables ...	—	—	0 8	
<i>(c) Sundries—</i>				
Mustard oil ...	1 sr.	Rs. 1-8 per sr.	1 8	
Gur ...	1 "	As. 8 " "	0 8	
Spices ...	—	—	1 0	
Total ...			23 0	
II. Clothing				
Saluka ...	1		1 8	
Pyjama ...	1		1 10	
Children's clothes...	1		1 6	
Angochha' ...	1		0 8	
Total ...			5 0	

Heads of Expenditure	Quantity	Rate	Amount Spent	Remarks
			Rs. as.	
III. House				
Rent ...	—	—	2 0	
IV. Light and Fuel				
Kerosene oil ...	2 bottles	4 as. per bottle	0 8	
Fuel ...	1 md.	Rs. 1-8 per md.	1 8	
Total ...			2 0	
V. Health and Education				
Medicines ...	—	—	0 8	
School fees ...	—	—	0 4	
Stationery ...	—	—	0 4	
Total ...			1 0	
VI. Miscellaneous				
Barber ...	—	—	0 3	
Dhobi ...	—	—	0 13	
Man, Tobacco ...	—	—	1 0	
			2 0	
VII. Savings and Investments	—	—	—	

PERCENTAGE OF TOTAL INCOME SPENT ON CHIEF HEADS

Chief Heads of Expenditure			Amount Spent	Percentage of Total
			Rs. as.	
I. Food	...	...	23 0	65.7
II. Clothing	...	...	5 0	14.3
III. House	...	...	2 0	5.7
IV. Light and Fuel	...	...	2 0	5.7
V. Health and Education...	...	...	1 0	2.9
VI. Miscellaneous	...	...	2 0	5.7
VII. Savings and Investments	...	...	—	—
Total			35 0	100.0

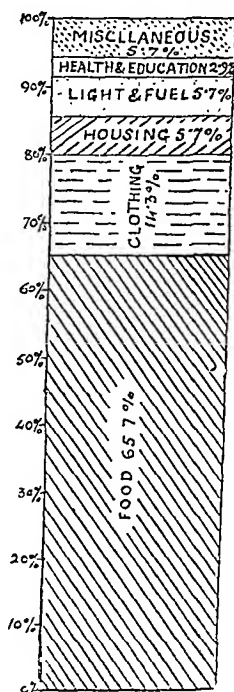


Fig. 20. Diagrammatic Representation of the above Budget

EXAMINATION QUESTIONS

U. P. Inter. Arts

1. What are family budgets? Prepare an imaginary budget (monthly) of a farmer or an industrial labourer. (1950)

2. Prepare a family budget of a cobbler of Kanpur whose annual income is Rs. 800. If his income rises to Rs. 3,000 per year, what will be its effect on the different items of his family budget? (1948)

3. What are family budgets? Prepare an imaginary budget of a clerk having an income of Rs. 40 per month. Illustrate it by means of a diagram. (1939)

4. A cultivator in a village has an annual income of Rs. 60. A clerk in the town gets an equal amount. Please compare and contrast their expenditure under the following heads:

Food and drink, fuel and light, education, health and sanitation, personal services, litigation, religious and social functions, household furniture, recreations, travel and correspondence, savings. (1936)

5. The following are the expenses of a workman:—

	Rs. a. p.		Rs. a. p.
Ata	... 0 2 0 a day	Sweeper	... 0 4 0 a month
Pan	... 0 0 3 a day	Cinema	... 0 6 0 a month
Wood	... 2 0 0 a month	Charpai	... 1 2 0 a year
Oil and ghee	... 2 0 0 a month	Kerosene oil	... 0 2 0 a week
Rice	... 0 0 6 a day	Dhotis	... 2 0 0 a year
A pair of shoes	... 1 8 0 a year	Salt	... 0 2 0 a month
Tobacco	... 0 3 0 a week	Other clothes	... 3 12 0 a year
House rent	... 3 0 0 a month	Country liquor	... 2 0 0 a month
Sweets	... 0 8 0 a month	Religious and social	
Vegetable	... 0 0 6 a day	expenses	... 6 0 0 a year
Municipal tax	... 1 14 0 six month	Debt payment	... 2 0 0 a month

Calculate all expenses on a monthly basis, classify the items under general heads, and represent your classification by a diagram. (U. P., 1932)

Rajputana Board

6. What are family budgets? Make out a possible family budget of an Indian artisan for a period of one month. (I. A., 1932)

7. State Engel's Law of Consumption and illustrate it by preparing two budgets, one of a teacher drawing a salary of Rs. 30 per month and the other of a carpenter with an income of Rs. 30 per month. (I. A., 1932)

Calculate all expenses on a monthly basis and classify the items under general heads and represent your classification by a diagram. (1932)

Nagpur Inter. Arts and Com.

8. What is a family budget? Construct one and explain Engel's Law. (1942)

9. Explain Engel's Law of Consumption. Draw up a rough family budget of the following persons under those heads: (a) Food, (b) Shelter or Rent, (c) Clothing, (d) Savings, (e) Amusement, Luxuries and Other Expenses—

(i) A peon earning Rs. 20 p. m.

(ii) A pleader earning Rs. 200 p. m.

(iii) A banker earning Rs. 2,000 p. m. (1949)

Sagar Inter. Arts

10. State Engel's Law of Consumption and illustrate by drawing two family budgets of the following: (i) a Government officer earning Rs. 300 p. m.; (ii) a peon earning Rs. 30 p. m. (1949)

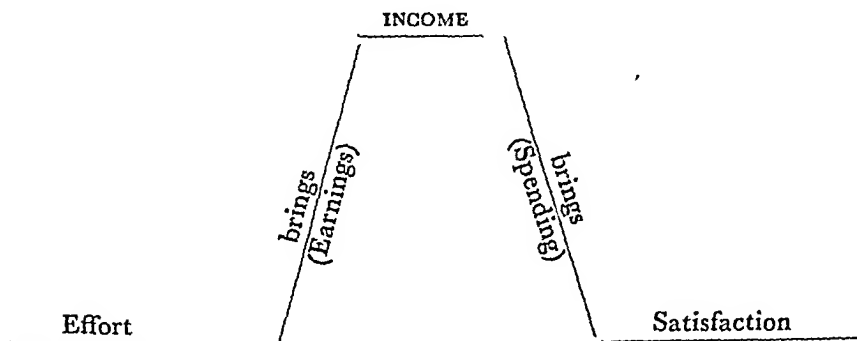
CHAPTER 20

INCOME, SPENDING AND SAVING

When it is matter of spending income, everyone wishes to get as much as possible for his money, and is, therefore, anxious that the price of the things he buys should be as low as possible.—*Layton*.

§ 1. INCOME

We had discussed in a previous chapter that in the primitive stage of civilisation human beings used to satisfy their wants directly. If they felt hunger, they plucked some fruits or killed some animals, and ate them up. If they wanted shelter, they made a crude covering or hut. Other wants were similarly satisfied by one's own direct efforts. In course of time this stage of direct satisfaction of wants was superseded by the stage of indirect satisfaction of wants. In the modern society a man makes an economic effort which brings him certain money *income*. He *spends* this income on the objects of his desire and thus satisfies his wants. The satisfaction of wants thus comes through income. The following diagram illustrates this process :



You may come across certain persons even today who may be found to satisfy a large number of their wants directly, without the intervention of income. This is more true of people living in villages than of those living in cities. In villages there are persons who grow the corn they consume ; stitch the clothes they wear ; prepare the house they live under ; cook the food they eat ; and satisfy other wants through their own direct efforts. But such cases are rare and cover a comparatively small part of the whole field of economic wants. As a general rule, it is the income which plays the central part in the satisfaction of wants. Efforts bring income ; which, when spent, brings satisfaction.

Disposal of income

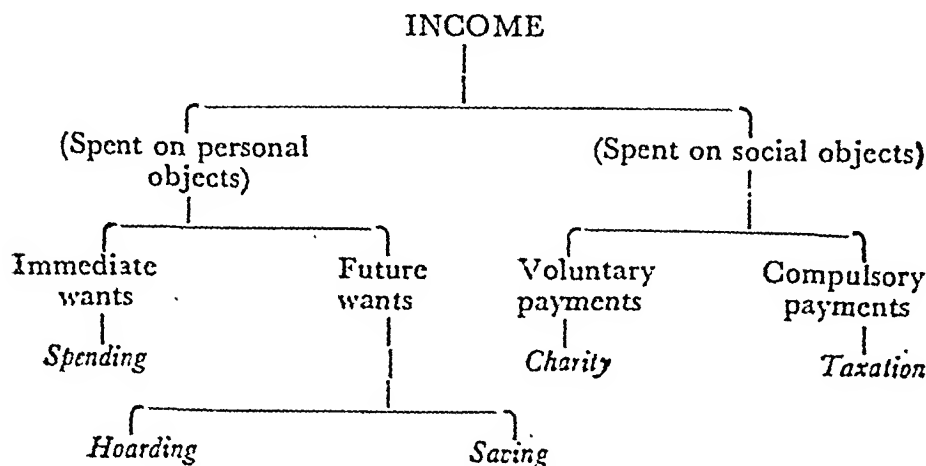
The satisfaction of the present wants is achieved for the most part through income ; but the whole of the income is not available for this purpose. The income earned by a person is devoted to two groups of objects, as follows :

(a) *Social Objects* : (i) Compulsory Payment—Tax, and (ii) Voluntary Payment—Charity :

(b) *Personal Objects* : (i) Spending, (ii) Saving, and [(iii) Hoarding.

Social Objects. A modern man lives in a society and derives certain conveniences and privileges from communal life. He, in turn, subjects himself to certain liabilities to the society. He has to pay *taxes* to the Central and State Governments and to Municipal Boards, so that the administration of the country, State and cities may be efficiently carried on. The payment of taxation is, of course, compulsory, but there are cases of voluntary expenditure incurred for the benefit of the society. Money given as *charity* to the poor, endowments and donations to educational and other philanthropic institutions are some of the examples.

Personal Objects. However, a substantial and large part of income is spent on personal objects or on the satisfaction of personal wants. The amount devoted to this purpose may be either (i) for the satisfaction of immediate wants, or (ii) for the satisfaction of future wants. *The devotion of income for the satisfaction of the present wants is known as spending.* The amount set aside for the satisfaction of future wants is known as (i) *hoarding*, if the amount is not utilised in some productive manner, as for example, if it is closed in an iron safe and kept there for future use ; or (ii) *saving*, if this amount is used productively, *e.g.*, if it is deposited in a bank on some interest. The following chart illustrates this classification of income.



Economics of charity shall not be discussed in this book ; it is a question of advanced economic study. The study of taxation is postponed to Part VI of this book where a detailed discussion of the subject will be given. In this chapter we shall throw some light on economics of spending, hoarding and saving only.

§ 2. ECONOMICS OF SPENDING

Places of Shopping

Spending in a modern society involves shops, and shopping. Income is usually spent on various commodities which may be purchased from different sources. In modern times means of transport have so much developed, commerce has become so widespread, and general economic progress has reached such an advanced stage, that we now have unprecedented facilities for the expenditure of money. Today we find shops, big and small, the multiple shops and the universal stores, the one-price shops and the touring trains, the exhibitions and the order-suppliers ; whereas our ancestors had no other facilities than the hawkers, fairs and periodical markets.

Hawkers. In the olden days towns were few and far between. Majority of the population lived, as it still lives in this country, in villages. Villages being small and transport connections with towns being inadequate or even non-existent, they were, more or less, completely segregated units. The usual link between the village and the outside world was the hawker or the itinerant vendor who used to go from village to village, bringing his little shop to the very door of his consumers. Along with the wares which he sold, he brought the news of the great world outside, together with a good deal more of local gossip which he picked up as he went from door to door. His stock consisted of goods which the somewhat limited industry of the household, farm or village was unable to provide. He was usually loquacious and persuasive, and his quick wit and invariably good humour helped him to dispose of his wares with great profit to himself.¹ He is still an important visitor to the Indian villages and is to be seen in all the big cities of this country.

Fairs or Melas. The hawkers, however, could not possibly be expected to satisfy all the wants of villagers. The need of some other arrangement of shopping was felt ; and it was satisfied for a long time by fairs or *Melas*. These fairs or *melas* were periodically held. Nor infrequently, they were connected with some religious festival or celebration. Magh Mela of Allahabad and Kumbh Mela of several places are the living examples of such fairs. Other fairs took purely commercial form. The cattle fair of

¹Penson, *Op. Cit.*, Vol. II, pp. 36-37.

Bateshwar in the Uttar Pradesh and Sonapur in Bihar are good instances.

Periodical Markets or Painths. The marketing facilities were also provided by temporary markets or *painths*, a form of marketing still in existence in India.

The local *painth* of each village is held once or twice a week and on fixed days. Generally a group of villages join together and fix their respective days of *painth* in such a fashion that a merchant may pass from one village to another in a round, setting up his shop every day in a particular village and upsetting it in the evening, to open it again the next morning in the next village. The *painth* is, as it has ever been, a very busy day for the village, and is usually attended by merchants of the neighbouring places.

Shops. Hawkers, fairs and markets are today important mostly in rural areas ; they are not important in cities. All the modern cities and towns have permanent markets where shops are opened on a permanent basis. Indeed, shops have begun to penetrate even into the villages. The shop-keeper displays and stocks the articles sold by him. The shop may be of simple type containing few goods and fewer varieties of each good ; or, it may be a very large shop stocking many varieties of countless commodities. A big shop is sometimes divided into a large number of departments, such that you can purchase everything you like from alpin to aeroplane, from one department or the other. Such shops are called Departmental Stores. There are, on the other hand, some shops in which all the articles are sold only for one fixed price. Such shops are called "one-price shops."

Exhibitions. Exhibitions provide another opportunity for the spending of income. The scope of an exhibition is determined by the area from which it draws sellers. For instance, if sellers belong to one district only, it is called district exhibition. If the sellers of a State as a whole are represented in the exhibition, it is known as State exhibitions. If, on the other hand, businessmen from all parts of the country congregate in it, it is called a national or all-India exhibition. Sometimes even international exhibitions are organised in the important trade centres of the world where all the countries of the world are represented.

Exhibitions have several advantages. They are an important means of the advertisement of the goods produced by merchants. Visitors to the exhibition easily come to know about the goods available for sale and the firms they can be had of. Moreover, exhibitions are the meeting-grounds of several producers of the same articles who by comparison find out the defects and shortcomings in their own wares. By this healthy competition, the standard of craftsmanship is raised. Again, exhibitions provide the place where goods of even distant merchants, which may not be otherwise available in the town, can be purchased.

Generally it is seen that villagers cannot afford to come to exhibitions ; or that exhibitions are not organized at the time when a manufacturer wants to advertise his goods. To meet such cases, exhibition trains and exhibition lorries are run.

Principles of Spending or Shopping

From the sources of purchasing goods, we now pass on to the principles which should be followed in making purchases. This discussion may seem useless to those who think that the spending of money is a very easy job ; our wants are so numerous that one may spend thousands and lacs of rupees within a short period. But the wise expenditure of money is a very difficult task, requiring as it does enormous skill and experience. The test of efficiency in spending money is the derivation of the maximum possible satisfaction out of the amount spent. This depends upon two sets of factors (i) the methods of spending ; and (ii) the prices of commodities purchased or general price level.

(i) *Methods of Spending.* The method in which money is spent is an important factor determining the amount of satisfaction obtained therefrom. Some people have the qualities which make the money go a long way ; while others do not know how to spend money properly. The qualities which lead to success in spending are the following :

(a) *Exact Knowledge of One's Requirements.* If a man wants to derive maximum satisfaction, he should know exactly what he requires and should purchase only the required articles. He should buy just those articles which he wants, and should not go in for an article simply because it is so attractive or because it is being sold at a cheap price.

(b) *Ability to Compare the Urgency of Various Wants.* A man should also be able to compare the intensity of various wants, to arrange them in order of their intensity, and to spend money on them in that order. If so, he will be in a position to satisfy his most pressing wants first and less pressing wants afterwards ; he will be able to follow the law of equi-marginal utility and derive the maximum benefit out of his expenditure.

(c) *Ability to Judge the Quality of Goods.* If a person is a good judge of the quality of things that are being offered for sale, he will easily pick up the things of right quality. He cannot be misled to purchase a bad but attractive article in place of a good but less attractive one for the same price. Cheapness or general attractiveness of certain articles will not delude him, and he will be guided by their intrinsic qualities in his purchases.

(d) *Knowledge of Places Where Best Things are Sold.* In order to get maximum benefit out of one's expenditure, one should know the places where a particular thing is sold at the cheapest price. He should not stick to a neighbouring shop simply because it is near

and easily approachable ; but should always purchase things from the shops where articles are cheap in proportion to their respective prices.

(e) *Bargaining Tact.* He should also be good at bargaining and higgling. In the advanced countries of today higgling is disappearing or declining; but it has not become obscure, and is liable to persist in wholesale and other trades. In our country, in particular, higgling holds an important sway, and one who does not know how to bargain is generally a loser in his purchases. It is a common experience that whereas an *ekkawala* may begin by demanding 8 annas, he may end by accepting 3 annas ; a fruit-seller may demand Re. 6-8-0 a seer for grapes, but he may accept only Rs. 5 a seer. In such cases the possession of bargaining tact is a great asset.

(ii) *Prices of Commodities Purchased, or General Price Level.* Besides the personal qualities discussed above, the prices of goods and services which are purchased also determine the amount of satisfaction derived from expenditure. If prices of commodities in general rise, then, other things remaining the same, the buyer will be able to purchase fewer articles than before and will obtain less than the anticipated satisfaction. Similarly, if prices in general fall, he will obtain more than the anticipated satisfaction. The average price of the commodities habitually purchased by a person is called the general price level. It is this general price level and the personal qualities of the buyer which determine how successfully he is able to spend his money.

§ 3. ECONOMICS OF SAVING AND HOARDING

According to the analysis of income presented in § 1, saving is that part of income which is set aside in some productive form for meeting future wants. Saving is to be differentiated from hoarding which can be defined as the putting aside of income in an unproductive manner for the satisfaction of future wants. If a man puts a sum of Rs. 5,000 in an iron safe to be used in future, he does not use the money productively ; therefore, it shall be called hoarding. But if he deposits this sum in a bank at interest, he uses it productively and this will be called saving.²

Saving versus Hoarding

The money hoarded is a dead loss to the owner and to the country at large. You may be aware of certain misers who are very averse to spending ; nor do they like to entrust their money to the bank lest the bank may fail or their actual wealth may be known to other people, particularly the income-tax officer ! They lockup their money in an iron safe or bury it underground and are

²The motives leading to saving have been discussed in Book III of this volume.

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Importance to the Income-Receiver. It is a well-known wisdom to spend only a part of one's income and to save the remaining part. "Cut your coat according to your cloth", is an old saying and implies that one's expenditure should be within one's income. In life one has to face many contingencies when money alone can help one. For meeting such contingencies, a man must save something from his current income, so that his past savings may come to his help when he is in financial difficulty. In particular, a man must save for the three following purposes : (i) He must save to meet some emergency, e. g., sickness, marriage, education, etc. (ii) He must save something as a provision for his old age. In old age, the earning capacity of a man declines or stops but his expenditure does not stop. Only his past savings can come to his help then. (iii) He must also save something as a provision for his dependents after his death. A man who is without any past savings has to face all sorts of difficulties in life and is sometimes even utterly ruined.

Importance to the Country. In modern times, production on a large scale is impossible without large capital. Capital is formed out of the savings of the people. It is, therefore, imperative for a country wanting to have rapid economic progress and high standard of living to have large savings and capital. Economic progress of our country has been very much held up for want of capital. For the last few years, our national expenditure has been more than our national income, i. e., we are spending out of our capital. This is called Dis-Saving. This means a dark future for the country.

Spending versus Saving

It is sometimes argued as to whether saving is more important than spending or spending is more important than saving. Arguments are given on both the sides by the advocates or the opposing camps to their own satisfaction. We shall point out what these arguments are and what are their defects.

Those who think that saving is more important than spending argue that saving leads to the accumulation of capital, so that if we have plenty of capital we can increase production to enormous extent. This will give rise to an era of prosperity; trade will be brisk; labourers will find better and more employment than before; businessmen will earn decent profits; material prosperity will be visible on all sides.

The arguments of the saving group is only partly correct. Prosperity is not the result of production alone. Goods produced must be sold. The sale of the goods produced is the real crux of the entire business problem. One might increase production to any extent, but if he cannot dispose of the goods produced that production will be of no account. It will, on the other hand, lead to a "glut" in the market, sagging prices, trade depression, shrinking production, decreased employment and low wages. But the goods produced can be sold only if people *spend* money. The

happy to possess it. This sort of hoarding does not yield any material welfare to the hoarder ; the money hoarded is as good as not possessed. Such money is of no use to the country at large which almost loses it since it cannot be devoted to any productive purposes. Hoarding is, therefore, to be discouraged.

Saving, on the other hand, is beneficial to the saver and the country alike. The person who puts some money, say, in a bank for a "rainy day" earns interest during the period he does not require it. The money deposited in the bank is lent out to industrialists, traders and agriculturists and goes to increase the wealth produced in the country.³

§ 4. SPENDING AND SAVING

Relation between Spending and Saving

The relation between spending and saving has been lucidly explained by T. S. Penon in the following words : "Spending and saving have one thing in common. In both cases wealth is given in exchange for certain goods and services, but the difference is that the goods and services are not put to the same use. In the case of spending, the goods and services are applied directly to the satisfaction of wants ; in the case of saving, the goods and services are applied to the production of other wealth, and so they bring satisfaction of wants indirectly instead of directly. For example, if a man who was about to spend £100 on additional furniture changed his mind and bought instead new inventions or appliances which would enable him to get more work done in a given time, he would have substituted saving for spending ; in each case a purchase would have been made, but the use to which the thing purchased was put was wealth production instead of wealth consumption.

"It would appear then that spending and saving are both essential features of our everyday economic life. Wealth is only produced because there is the desire to consume it, but since capital, the result of saving, is one of the necessary factors of wealth production, wealth must not only be produced for present consumption, it must be produced also for consumption at a future date."⁴

Importance of Savings

Savings are of very great importance, both to the income-receiver as well as to the country as a whole.

³Saving, it will thus be appreciated, is synonymous with 'capital'. Saving means conversion of 'wealth' into 'capital.'

⁴Penon, *The Economics of Everyday Life*, Vol. I, pp. 51-52.

How Saving is Made in Practice

We have discussed the problem of spending *versus* saving in its theoretical aspect. Let us now examine how does a man decide what amount of his income he should spend, and what amount he should save. If we look around us and try to study the psychology of those who save something, we would get an answer to our question.

Broadly speaking, persons can be divided into two classes, *viz.*,

(i) Those who save a certain percentage of their income, and decide to spend only the balance. There are some persons who deposit say 25% of their salary or income in a bank, and spend only 75%. These are the persons who have control on their expenses, who have coolly and carefully mapped out their requirements and who are systematic in their general outlook. But it does not necessarily follow that their expenditure is wise. Their expenditure, in relation to saving, will be wise if in 75% of their income, they live well and without difficulty.

(ii) Those who spend money freely and whatever remains with them at the end of the month is kept by them as saving. Such persons attach greater importance to the present than to the future and are generally careless in their plan of expenditure. Though it is possible even there to exercise some control on expenditure, but this control is bound to be very weak. Here also we cannot say that the expenditure is wise ; on the other hand, since it is planless, it may be very unwise.

None of these methods is, however, ideal. The first method is too rough and unscientific. There is no sanctity about any particular percentage and it would be foolish to say that if one saves a certain percentage of one's income, it will be a very wise thing. The second method is too careless and does not attach proper importance to saving. What one should actually do is to very carefully find out his items of expenditure and try to so arrange them that he lives decently and according to his status. He should try to envisage his want of money in future ; and he should determine his savings accordingly. Thus his present expenditure should be determined according to his needs and status, his savings according to his future needs ; and in his manner a proper proportion should be maintained between spending and saving.

TEST QUESTIONS

1. Show the part which income plays in the economic activities of a modern man.
2. Analyse income into its component parts and give a short description of each of them.
3. Write an essay on 'Shops and Sins'.

conclusion, therefore, is that prosperity, which it is supposed can be brought about by an increase in saving, requires for its support increased expenditure. As such, the idea that saving is more important than spending is not accurate.

The argument of the advocates of spending group is similarly fallacious. They argue that if people spend money freely and on a large scale, goods will be sold in plenty; trade activity will be increased; production will get a stimulus; employment will go up; wages will also look up; and an era of prosperity will set in.

This argument can be easily criticised. It envisages the circle of prosperity as a result of increased expenditure. Increased expenditure, it is said, leads to increased production. But increased production cannot become an accomplished fact unless saving on a large scale has been done, so that sufficient capital is available for large-scale production. As observed above, saving is as much necessary for economic prosperity as spending.

It is, therefore, abundantly clear that for the economic welfare of a country, saving and spending are both important. Just as both the legs of a man are necessary for walking, similarly both saving and spending are necessary and essential for the proper functioning of the national economy. Nobody can say which of the two legs is more important, for both are necessary for walking; similarly it cannot be stated, with any show of reason, whether saving or spending is more important in the interest of the economy, because no economy can be prosperous without either.

Another Form of the Controversy

The controversy as stated above is evidently misplaced; no party to the controversy is absolutely correct. The controversy can be presented in a slightly different form, when it becomes quite sensible as well as important. We may very well ask: Should a country spend more or save more at any particular moment? This will depend upon the requirements of the moment. If at that moment, the country in question has enormous capital accumulations so that the entire output is not likely to be sold off, it is essential that emphasis be laid on spending. For instance, during the trade depression of 1929-32, there was a glut in the market and spending was of better help to the economy than saving. If, on the other hand, there has been disproportionate spending of money at a particular moment, so that the capital resources are exhausted, obviously saving is more important than spending. For instance, after the First Great War it was found that countries had been spending money very recklessly during the war without any regard to their capital accumulations, with the result that after the war much capital was required. At a time like this, saving is more important than spending.

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TEST QUESTIONS

1. Show the part which income plays in the economic activities of a modern man.
2. Analyse income into its component parts and give a short description of each of them.
3. Write an essay on 'Shops and Sins'.

4. What are the possible sources from where purchases can be made ? What are the principles of spending money ?
5. Distinguish between saving and hoarding and give their respective advantages and disadvantages.
6. "Spending is more important than saving to the material welfare". Comment.

EXAMINATION QUESTIONS

U. P. Int. Arts.

1. Write a short note on Saving and Hoarding. (1949).
2. Write note on Saving and Spending (1948).
3. Discuss with examples the relation between saving and spending. (1945).
4. What is the object of saving ? How does a man decide what amount of his income he should spend, and what amount he should save ? (U. P. 1943).

U. P. Inter. Commerce

5. What is saving ? "Saving is a personal and social duty." Discuss the truth of this statement. (1944).

Raj. Int. Arts

6. Write a note on "income". (1948).
7. Illustrate the application of the Law of Substitution (a) in the spending of income, (b) in the organisation of business (1945 A).

Patna Inter. Com.

8. Write a short note on Income. (1949 Supp.)

SOCIAL ASPECT OF SPENDING

The law interferes hardly at all with a man's methods of spending his money so far as it affects only himself, but it does to a certain limited extent control his expenditure in cases where it is likely to be in actual conflict with the general interest'.—*Penson*.

§ 1. EFFECTS OF INDIVIDUAL SPENDING ON SOCIETY

In the foregoing chapter we surveyed the effects of individual spending on the particular individual concerned. It would be readily appreciated that since an individual lives in a society and his actions affect its well-being, his method and nature of spending have telling effects on the welfare of the society he belongs to. He may benefit or harm the society through his spending. By spending money on healthy and salutary objects he may contribute to his productive efficiency, add to the richness of the society as a whole, and form an ideal for others to follow. Or, he may indulge in harmful consumption of intoxicating drugs and liquors and things of that nature, make himself inefficient, prejudice the richness of the society, and set a bad example for others.

The effects of an individual expenditure on society can be studied under two heads: (i) effects on production; and (ii) effects on consumption.

Effects on Production

An individual's method of spending has considerable bearing on production, for production closely follows the demand: whatever is demanded is produced. Thus production may be good or bad, may be more or less. More specifically, the following are the effects of individual expenditure on production:

(a) The method of individual expenditure may divert productive resources (labour, capital, etc.) from one channel of production to another. Productive resources are devoted to the production of those goods that are demanded and taken away from the production of those goods the demand for which slackens. This diversion of resources may be good or bad from the point of view of material prosperity. If, at any particular moment, housing scheme for labourers is the most pressing necessity, but some rich fellows demand beautiful and costly clothes, productive resources will be diverted to the production of the latter: such diversion will be socially

injurious. This sort of misdirection of productive resources can be checked by the state interference.

(b) The nature of individual expenditure may lead to the employment of labourers in healthy and useful avocations or in dangerous and injurious lines like the production of explosives and arms, etc. The former are beneficial to labourers; but the latter take a heavy toll of human life, while, many of them develop many abnormal and injurious tendencies, for crimes and such other nefarious acts.

(c) A consumer may, through the nature of his expenditure, increase or decrease his efficiency which will be reflected in his productivity. He may thus make the society rich or poor. He may exert similar influences on others with similar results.

Effects on Consumption

The nature of the expenditure of an individual affects nature of expenditure of other members of society as well. The instinct to follow others is strong in human heart. The social ties strengthen this tendency. If a person takes to drinking, he may persuade others to indulge in the same vice, and the habit may spread. Again, if his resources are considerable, he may monopolise the nutritive articles for himself and for his class, thus leaving only poor varieties for the consumption of the poor. This is more possible when it is initiated by a group of persons than by an individual alone.

§ 2. STATE INTERVENTION IN SPENDING

It is sufficiently obvious from the above discussion that individual spending has a tendency of affecting the society either beneficially or injuriously. To do away with the harmful effects on society which individual spending is capable of, governments generally interfere and control the injurious spending.

Opinions differ on the point whether the state is justified to interfere or not. This is indeed an age-long problem in Economics and politics, on which there has ever been a difference of opinion. Some persons hold that the function of the state is only to look after the national defence of the country and the maintenance of peace and order. It has no right to interfere in matters so personal as spending. There are, on the other hand, other thinkers who vest the state with all possible powers. According to them, state has a right to interfere wherever it likes. The correct attitude is that which steers midway between these two extreme views; the state should interfere only if the interest of the society is in the danger of injury. This is the opinion which today finds the greatest support and appears to the most reasonable view.

Some Old Methods of Interference

State interference in spending is not a thing of recent origin. There were several methods of control in force in ancient times as well. The most famous of these were the *Sumptuary Laws* which forbade the consumption of certain articles and insisted on the consumption of others. In the 19th century in Spain, for instance, people were spending money recklessly on silks, velvets, etc., when it was legislated that these things can neither be manufactured, nor sold, nor used. Similarly in England during the 17th century when it was thought desirable to give encouragement to the silk industry, the use of silk for covering buttons and for making button-holes was made compulsory.

State Interference in India

In our country, the State has interfered in spending in some cases. During the regime of the Congress Government, the policy of prohibition has in certain areas been launched upon according to which the consumption of liquor has been prohibited. This is due to the obvious ill-effects of this consumption on the efficiency of the people. Again, Governments in various States have tried to check the adulteration of various foodstuffs, *ghee*, milk, etc., in several ways.

Wartime Interference : Rationing and Price Control

While the case for interference in individual spending is strong in peace time, it becomes stronger still in such an abnormal time as a war. At such a time, the needs of the war theatres come first and civilian consumption has to be restricted with a view to enable producers to supply war needs. A fixed quota of certain essential commodities is allotted to each individual during a given time and this is the most that he can purchase. This is known as RATIONING. Rationing has been introduced in India in several States and its utility and necessity is largely realised. Rationing serves another useful purpose as well. It involves the sale of commodities at a fixed price and thus helps to keep down prices. Rationing and price control go hand in hand. Governments in this country have been intervening in consumption both in the matter of quantity and price : and such interference has been found generally useful.

TEST QUESTIONS

1. Does the expenditure of an individual affect the welfare of society ? If so, how ?
2. Should the State interfere in individual spending ? What is your opinion on the point ?
3. Give some illustration of State interference in spending in India and abroad.
4. Write short notes on sumptuary Laws, Price Control and Rationing.

EXAMINATION QUESTIONS

U. P. Int. Arts.

1. Is it of any consequence to society how a person spends his income ? Should society interfere with individual liberty in spending (I. A., 1948, 1940).

2. What is the relation of saving to spending ? Is it of any consequence to society, how an individual spends his income ? Should society interfere with a man's liberty in spending money ? (I. A., 1934, 1937)

U. P. Int. Com.

3. Is it of any consequence to society how a person spends his income ? Should society interfere with individual liberty in spending ? (1949)

4. Discuss the various methods whereby a rich man can affect other members of the society by the manner in which he makes use of his money. (1947)

Rajputana, Inter. Arts

5. "From the social point of view saving is always better than spending." Do you agree with this view ? Fully explain your answer. (I. A., 1944)

LUXURIES AND WASTE

The consumption of luxuries should be indulged in only after all are provided with necessities. This is a moral principle that commends itself to all civilised communities and finds indirect expression in positive law.—*Seager*.

We shall now take up certain special problems of individual expenditure, and their social repercussions. We shall also consider what should be the attitude of the state on such matters. These problems relate themselves to luxuries and waste.

§ 1. THE PROBLEM OF LUXURIES

Luxuries are generally consumed by the rich and supposedly they derive the benefit at least worth the price they pay for them. But if we look at luxuries from the point of view of society, we will find that their consumption cannot be definitely and categorically approved or disapproved. The consumption of luxuries has been defended from social points of view ; while it has also been subjected to serious criticism from the same angle of vision.

Special Benefits of Luxuries

Society derives the following benefits from the consumption of luxuries.

1. Luxuries are necessary for human progress. A luxury has been defined by Professor Gide as the satisfaction of a superfluous want ; and as the word "superfluous" is associated with some accusation, luxuries are usually looked down upon. But a thing does not become condemnable simply because it is superfluous. As Voltaire once remarked, even superfluous is sometimes necessary—a remark which applies with much force to luxuries. Every man must have some luxuries to consume; otherwise he will be reduced to the position of a beast of burden, with no variety, pleasure and richness in life. Every want was, in fact, considered a luxury at the time of its origin and had it then been suppressed as being superfluous, society would have today been in the stage of barbarism.

2. Generally luxurious articles are very artistic and require skill and refinement. The consumption of luxuries, therefore, raises the standard of artistic excellence.

3. The desire to get luxuries, at present unattainable, fires ambition or leads to the putting forth of greater power of mind and body. When a man sees some persons enjoying luxuries in

plenty, he feels a prompting to do the same. This feeling inspires him to work hard and more efficiently so that he may be able to increase his income and enjoy the luxuries he pines for. An ordinary labourer inspired by these motives may in course of time become a boss, then the inventor of machinery, and eventually the owner of a factory.

4. The consumption of luxuries raises the standard of living. A rise in the standard of living discourages procreation and thus checks over-population. Before a newly married couple, the question which frequently arises is: "A car or a baby," and the former often wins! It is interesting to observe that the rich have fewer children than the poor.

5. Luxuries, like precious ornaments and stones, constitute a form of insurance in the days of financial difficulties. This is the reason why women of our country attach so much importance to their gold and silver ornaments; for after the death of their husband or in difficult days during his life, they may be of use to the family.

6. It is sometimes mentioned that the consumption of luxuries creates employment. Suppose a rich man makes a grand show of fireworks and invites his friends and relations to witness it. Employment will, then, be given to fireworks-makers, to drivers of conveyances in which his friends and relatives will come, and so on. But this point, as we shall presently see, is not quite correct.

7. Luxuries, it is sometimes mentioned, leads to the transference of wealth from the rich to the poor. Generally luxuries are consumed by the rich who give money to the poor who supply them the articles of luxury. This point again is not quite correct as will be shown below.

Social Disadvantages of Luxuries

1. A strong argument against luxuries is that their consumption is generally confined to the richer sections of the community. Thus a few rich men are able to enjoy joy-flights and joy-rides, to pass their days in what Bernard Shaw styles as "resourceless loafing and consumption of chocolates, cream, cigarettes, cocktails, novels and illustrated papers". The poor people never get a chance to enjoy them. Luxuries thus go to make a difference between the rich and the poor look very wide, a factor which has led to revolutions in various countries of the world. In our country in the older days luxuries were few and far between and the distinction between the poor and the rich was very imperceptible. Social life had a smooth running. But now with the increase in the facility, number and popularity of luxuries, the gulf between the rich and the poor has become very wide and these two sections are now represented as foes rather than friends.

2. Sometimes the poor are also able to enjoy some luxuries; but this is not free from mischief. The poor have very slender resources

and the use of luxuries often takes place at the cost of necessities and comforts. Sometimes luxuries are very injurious to the poor and deteriorate their efficiency. Liquor is a luxury of this character.

3. Some people believe that it is wrong to say that luxuries raise the standard of art of the community. Articles are now produced through mechanical appliances in the factories where skill is not much needed. It is only in those few businesses where hand work still persists that the luxuries may be said to encourage art.

4. The statement that luxuries create employment is not correct. If money is spent, not on luxuries but on some other more useful commodities necessary for efficiency and healthy living, there will be no less employment and briskness of trade.

5. The argument that luxuries lead to the transfer of wealth from the rich to the poor is also a shady one. The amount of money, that a rich man gives to the poor for supply of luxurious articles, is not kept by the latter entirely for himself. The preparation of the article requires costly raw materials and sometimes costly tools as well. The labourer has to pay for them and a large portion of what he receives thus passes out of his hands, generally into the hands of the rich persons who deal in such costly things. Thus in essence, some rich persons pay money to other rich persons through the medium of labourers. The transfer of wealth from the rich to the poor does not actually take place.

§ 2. WASTE

When we spend money on certain objects, we expect to receive some return. This return may be more than, or less than, or equal to, the amount paid for the commodity purchased. When the expenditure on a particular object gives less utility than the amount spent, it is called 'waste'. *Waste may, therefore, be defined as the spending of money without deriving a corresponding benefit or return of satisfaction.*

Examples of waste can be easily imagined. When fruits "go bad," when one leaves food uneaten in a dish, when a work is left incomplete, some waste takes place.

An expenditure is called waste either from the point of view of the individual, or from the point of view of the society, or from both the standpoints. All the examples given in the previous paragraph are the examples of waste from both, the individual as well as the social standpoints. A feast given by a rich man may not be a waste from his point of view—he may feel that he has derived as much benefit as the cost of the entertainment; but little importance may be attached to such fleeting enjoyment from the social angle of vision and it may be considered a social waste.

§ 3. DESTRUCTION OF PROPERTY AND EMPLOYMENT

Destruction of wealth, accidentally or deliberately, brings with it no satisfaction and is, therefore, waste. It is asserted by some that destruction of wealth creates employment since the wealth that has been destroyed has to be replaced. This argument is, however, fallacious and is known as "Make-work Fallacy". It is certainly true that if a glass pane is broken, or a book is torn away, or a house is reduced to ashes, each of these things will have to be replaced, and employment will thus be created for their producers; but had they not been destroyed, the money devoted to their replacement would have been spent on some other useful objects. The person whose glass pane was broken, might then have purchased some sweets for his family; the student whose book was torn to pieces, could then have purchased a fountain-pen; the house owner whose building has burnt down, could then have purchased a machinery. Employment thus would have been created even in the absence of any destruction of property. The creation of employment is based on expenditure and whether the expenditure is for the replacement of the destroyed property, or for the purchase of new articles, is immaterial so far as the total volume of employment goes. It is, of course, in the interest of the nation that its wealth may not be destroyed and it may not be made poorer in this fashion.

APPENDIX TO CHAPTER 22

The Broken Pane

Frederick Bastiat, a French economist of great repute, has given the story of the *Broken Pane* in one of his essays, known as *Sophisms of Economists*, which is reproduced below.

"Have you ever had occasion to witness the fury of the honest burgess, Jacques Bonhomme, when his scapegrace son has broken a pane of glass? If you have, you cannot fail to have observed that all the bystanders, there were thirty of them, lay their heads together to offer the unfortunate proprietor this never-failing consolation, that there is good in every misfortune, and that such accidents give a fillip to trade. Everybody must live. If no windows were broken, what would become of glaziers? Now, this formula of condolence contains a theory which it is proper to lay hold of in this very simple case, because it is exactly the same theory which unfortunately governs the greater part of our economic institutions.

Assuming that it becomes necessary to expend six francs in repairing the damage, if you mean to say that the accident brings in six francs to the glazier, and to that extent encourages his trade. I grant it fairly and frankly and admit that you reason justly.

The glazier arrives, does his work, pockets his money, rubs his hands and blesses the scapegrace son.

That is what we see.

But if, by way of deduction you come to conclude as is too often done, that it is a good thing to break windows—that it makes money circulate and hence encourages trade in general is the result, I am obliged to cry, Halt! Your theory stops at what we see, and takes no account of what we don't see.

We don't see that since our burgess has been obliged to spend his six francs on the thing, he can no longer spend them on another.

We don't see that if he had not this pane to replace, he would have replaced, for example, his shoes, which are down at the heels ; or have placed a new book on his shelf. In short, he would have employed his six francs in a way in which he cannot now employ them. Let us see, then, how the account stands with trade in general. The pane being broken, the glazier's trade is benefited to the extent of six francs. *That is what we see.*

If the pane had not been broken, the shoemakers or some other trade would have been encouraged to the extent of six francs. *That is what we don't see.* And if we take into account what we don't see, which is a negative fact, as well as what we do see, which is a positive fact, we shall discover that trade in general or the aggregate of national industry, has no interest, one way or other, whether windows are broken or not.

Let us see, again, how the account stands with Jacques Bonhomme. On the last hypothesis, that of the pane being broken, he spends six francs, and gets neither more nor less than he had before, namely, the use and enjoyment of a pane of glass. On the other hypothesis, namely, that the accident had not happened, he would have expended six francs on shoes, and would have had the enjoyment both of the shoes and of the pane of glass.

Now as the good burgess, Jacques Bonhomme, constitutes a fraction of society at large, we are forced to conclude that society, taken in the aggregate, and after all accounts of labour and employment have been squared, has lost the value of the pane which has been broken.

TEST QUESTIONS

1. Describe the advantages and disadvantages of luxuries. Do you approve of the consumption of luxuries ?
2. What do you mean by waste ?
3. "Destruction creates employment ; therefore, property may be deliberately destroyed." Comment.

EXAMINATION QUESTIONS

U. P. Inter. Arts.

1. Write a short note on Luxuries. (1949)
2. Write a short note on Economic Waste. (1947)
3. What are luxuries ? Some people are not at all in favour of luxuries. Are they right ? Discuss the advantages and disadvantages of luxuries in society. (1943)

U. P. Inter. Com.

4. "Destruction creates employment ; therefore property may be deliberately destroyed." (1947)
5. Explain with examples the difference between waste and consumption. Do both affect production in the same way ? (1944)

Delhi, Inter. Arts.

6. Discuss the view that free expenditure on the part of richer classes tends to increase the employment by making money circulate. (1932)
7. What are the luxuries ? Is there any social and economic justification for them ? (1929)

Production

Book III

Chapters 23-43

CHAPTER 23

MEANING OF PRODUCTION

A school of French economists of the 18th century, the Physiocrats, gave currency to the belief that agriculture is productive in a special and particular sense. They even went so far as to characterize manufacturing and mercantile pursuits as sterile, or unproductive. Complete knowledge of the real nature of production has emancipated most minds from these misconceptions.—Seager.

§ 1. WHAT DOES PRODUCTION MEAN ?

Human beings have to make some effort in order to satisfy their wants. This effort is meant to change the form of the existing matter in such a way that it may acquire the desired utility, *i. e.*, the want-satisfying power. The existing matter may be of no use in its original state; but after a change in its form is brought about it comes to possess utility. Obviously what a man creates by his effort is not matter, matter in fact cannot be created, but utility. The transformation of matter resulting in the creation of utilities is known as Production. Production may, therefore, be defined as *the creation of utilities*.¹

Let us take some concrete examples. A mason, building a house, simply puts bricks, mortar and cement in such an order as to give them the shape of a house. He does not create matter—bricks, mortar and cement are not made by him; he simply creates utilities—the house has greater utility than the utility of bricks, mortar and cement separately. Similarly a tailor first cuts pieces of required shape from a roll of cloth and then stitches them with thread, and prepares, say, a coat. He does not create matter—cloth or thread are not made by him; he simply creates utility—the coat has greater utility than the articles it is made of. A weaver, again, does not create cloth but re-arranges the yarn in such a manner that cloth is produced which has greater utility than yarn. A potter in making pots out of clay, a goldsmith in making ornaments out of gold, a carpenter in making chairs out of wood and a miner in digging out ore from the bowels of earth,

all create utility, and not matter and are therefore, producers. By production, it may be repeated, we mean the creation of utilities and not of matter.²

Production as a Branch of Economics

Production as an economic act may well be differentiated from production as a branch of Economics. In the former sense, production is the creation of utilities; in the latter sense, it is that division of Economics which studies the problems relating to the production of wealth. Students should clearly note these two applications of the term 'production'.

§ 2. KINDS OF UTILITY

Utilities are created in six different ways and are divided into six classes accordingly. Corresponding to them are six types of the process of production :

(1) *Form Utility*. When utility is created by changing the form of the matter, it is called form utility. The carpenter who gives to a log of wood the form of a chair; the blacksmith who gives to iron the form of a hammer; and the goldsmith who gives to gold the form of a necklace, all create form utility. In the creation of form utility, it has been aptly remarked, there is the widest possible range of operations, mechanical or chemical, from that of the agriculturist by whose intervention the black earth of the *prairie* is transmuted into golden grains, to that of the lace-maker whose whole industry is to arrange his gossamer into fantastic shapes.

This form of production includes all the extractive and manufacturing industries. Extractive industries are those industries in which men are engaged in extracting or drawing forth raw materials from the lap of Nature; for instance, agriculture, mining, forestry and fishery. Manufacturing industries, on the other hand, are those industries which give different forms of useful articles to the raw materials, for instance, cotton textile mills, sugar factories and steel factories.

(2) *Place Utility*. The utility created by the removal of an article from one place to another, is known as place utility. Gene-

²The definition of production as the creation of utilities is, in the opinion of Prof. Nicholson and others, not strictly accurate. Economics, they say, is not concerned with each and every type of utility; it studies a utility only if it has value. Economics studies wealth which consists of goods and services having value-in-exchange; so that those goods and services which have no value-in-exchange are not studied in Economics. Strictly speaking, therefore, production should be defined as the "creation of values." Professor Nicholson defines production as the "creation of economic utilities"; and thinks that by so defining it we will get rid of several vague and inconsistent ideas popularly associated with this term. But as we use the term 'value' to connote the same sense as economic utilities, it will be better to define production as the creation of value.

rally the article in question is plentiful at the place from where it is transported, and scarce at the place to which it is removed. For example, Kashmir fruits have greater utility in Allahabad than in Kashmir; timber has greater utility in a pulp factory or in a carpenter's workshop than in a forest; sand has greater utility in the heart of a city, where it may be used for the construction of buildings, than in a desert or on the bank of a river. The carriage of all these things from their respective places of origin to their respective places of consumption, increases their utility. Transportation, therefore, is a productive process.

(3) *Time Utility.* The utility which is created through the preservation or storage of a commodity for some time, is known as time utility. There are some commodities which acquire greater utility with the passage of time. Old wine, for instance, is considered to be far more tasteful than fresh wine. Old rice similarly possesses more utility than fresh rice. Again, a cake of ice which has no utility in the winter may acquire utility through being kept over into the following summer. Such processes of preservation and storage are, therefore, productive processes. Accordingly the trader, who purchases goods at the time when they are in plenty and cheap and sells them at the time when they are comparatively scarce and dear, is a producer.

(4) *Possession Utility.* Possession utility is the utility which is created by transferring the possession of an article. Possession utility is created because the transferee derives greater utility from the possession and use of the article than the transferor. For instance, books and stationery kept in the shelves of a shop-keeper do not have as much utility to him as they have to their purchasers. The processes of purchase and sale are, as such, productive processes and shop-keepers are producers.

(5) *Service Utility.* The utility created by the rendering of some service not embodied in a material object, is known as service utility. All the personal services, which are rendered directly to the person of the consumer, create service utility. Similarly all the public services, which benefit citizens through the agency of the State, create utility. The teacher who teaches the student, the doctor who cures the patient, the actor who acts, the dancer who dances, and the constable who protects life and property of the citizen, all create service utility and producers.

(6) *Knowledge Utility.* The utility which is created through the impartation of knowledge is known as knowledge utility. A good example is an informative advertisement. One may not know the advantages of tooth-paste, which may, therefore, have no utility to him; but if an advertisement tells one its attributes and advantages, it may begin to appear very necessary. Its utility is thus created by the advertisement. Advertisements which convey knowledge utility are productive.

The above discussion shows that the term production is fairly wide. A *farmer* is a producer because he creates form utility. So is a *trader* who creates possession utility. *Domestic servants* are producers as they create service utility. Carpenters, blacksmiths, businessmen, lawyers, doctors, teachers, engine drivers, advertisement framers are all producers.³ But a *college student* is not a producer because he does not create any utility as a student.

§ 3. PRODUCTIVE OCCUPATIONS

Productive occupations may conveniently be divided into the following classes :

1. Industrial Occupations

These occupations are concerned with production of material objects. They are divisible into : (a) *Extractive occupations* which are concerned with the extraction or obtainment of materials from the lap of Nature ; and (b) *Manufacturing occupations* which concern themselves with the conversion of raw materials into finished products.

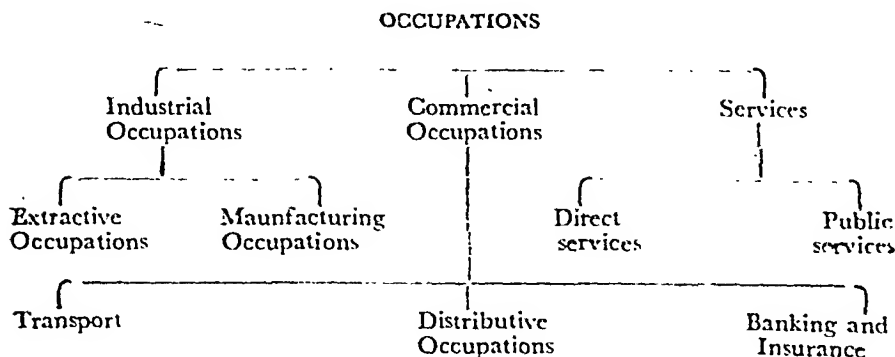


Chart 21. Showing classes of occupations.

2. Commercial Occupations

The occupations which provide links between producers and consumers, i.e., help in the transfer of goods, from producers to consumers, are known as commercial occupations. Such occupations are of three varieties :

(a) *Distributive*. They include the activities of the persons who actually distribute goods among consumers directly or indirectly.

³In the early times, there was in France a group of economists known as Physiocrats, who held that agriculture alone is productive, other occupations being unproductive. Physiocrats were followed by Mercantilists, according to whom commerce alone was productive. Adam Smith, the Father of Modern Economics, later on extended the scope of production to the creation of all the material objects. The scope has, in modern times, been still more widened so as to include the utility of any and every kind, whether embodied in a material object or not.

Wholesalers, retailers, commercial travellers are all engaged in distributive occupations.

(b) *Transport*. It relates itself to the movement of goods from one place to another. Railway transport, motor transport, etc., belong to this category.

(c) *Banking and Insurance*. Bankers finance the movement of commodities and also give monetary help to wholesalers, retailers and consumers in diverse ways. Protection against fire and sea risks and other contingencies is provided by insurance companies.

3. Service

The professions of rendering services are those in which service is rendered either direct to consumers or to the public. The former is known as direct service; and the latter, public service. The services of doctors, lawyers, teachers and domestic servants are direct services. The services of civil servants, High Court Judges and constables are public services.

TEST QUESTIONS

1. Explain the meaning of production fully.
2. "Production is the creation of economic utilities." Comment.
3. Describe the various processes of production.
4. What are the kinds of utility you know? Describe fully.
5. Are these producers: musicians; traders; sweepers; teachers; stock-exchange dealers; speculators; actors; painters; sadhus; insane persons; wives?

EXAMINATION QUESTIONS

U. P. Int. Arts.

1. What do you understand by 'Production'? Examine if the following are productive workers: (a) your examiner in Economics, (b) farmer, (c) your domestic servant, (d) trader. (1951)

2. Explain the meaning of Production. Explain clearly form, place and time utilities. (1949)

Raj. Int. Arts.

3. What do you understand by 'Production'? Consider whether the following are productive workers: (a) farmer, (b) traders, (c) domestic servants, (d) College student. Give reasons. (1940)

Raj. Int. Com.

4. Write a note on 'Production'. 1943.

Banaras Int. Com.

6. 'Production is the creation of utilities, while consumption is the destruction thereof'. Explain pointing out in this connection the relation between production and consumption. (1948)

Nagpur Inter. Arts.

7. Production is the creation of utilities, consumption involves the destruction of utility. Explain (1947)

Nagpur Int. Com.

8. "Production is the creation of utilities, consumption involves the destruction of utility." Explain. (1947)

Poona Int. Com.

9. What do you understand by production ? How is it related to consumption and distribution ? (1949)

Other Bodies

10. What is the meaning of production in Economics ?

(Punjab, I. A., 1934.

11. Explain production. What are the factors of production ?

(Calcutta, I. A., 1927;

FACTORS OF PRODUCTION

Thanks to a tradition dating from the time of the first economists, three agents of production have always been distinguished : land, labour and capital. This three-fold division has the advantage of simplicity, and there seems to be no need to abandon it.—*Gide*.

§ 1. FACTORS OF PRODUCTION

There are certain things which contribute to production. They are, therefore, called factors of production. The factors of production are chiefly two : (i) the personal exertion or effort of human beings ; and (ii) the object to which the exertion is applied. If a hunter wants animals, he must make an effort to kill them ; and the animals which he wants to kill must exist. Similarly, the grass-cutter who wants to cut grass must devote himself to the purpose and the grass which he wants to cut must be in existence. These two requisites are indispensable for production ; without either of them, no production is possible. These two requisites of production are known in Economics as (i) *Labour*, which refers to the personal exertion of human beings, and (ii) *Land or Gifts of Nature*, which signifies the objects provided by Nature and which men adapt for their use.¹

The importance of these two factors of production was realised by man during the days of his earliest habitation on this planet. It was also appreciated by him fairly early that his efforts could be made more effective if he could have some implements or weapons to aid his efforts. The primitive hunter had realized that he could kill more animals if he had a spear ; and the grass-cutter had similarly felt that he could cut grass quickly and plentifully if he could have a hook. This external implement or appliance, which increases the effectiveness of human efforts, and which emerged as a third factor of production at an early stage of civilisation, is known as *Capital*.

These are the three chief requirements of productive effort, namely :

(1) *The Natural*—Gifts of Nature.

¹There are two essential factors in all productive processes : nature and man. Nature figures in production as an aggregate of materials and blind forces. Acting in conformity with invariable laws, she destroys as readily as she creates. Man, on the contrary, appears as a being with conscious purpose. He also destroys—not ruthlessly, however, as nature seems to do, but in order to gratify his wants. Scager, *Op. Cit.*, p. 32.

(2) The *Personal*—Man's own energy and skill.

(3) The *Artificial*—That which man has made to help him in this effort.

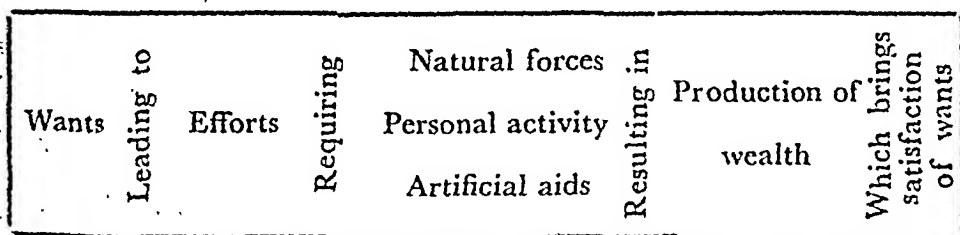


Fig. 22 Explaining the factors of production.

Other factors also came to be recognized a little later. With the passage of time and advancement of learning, production took

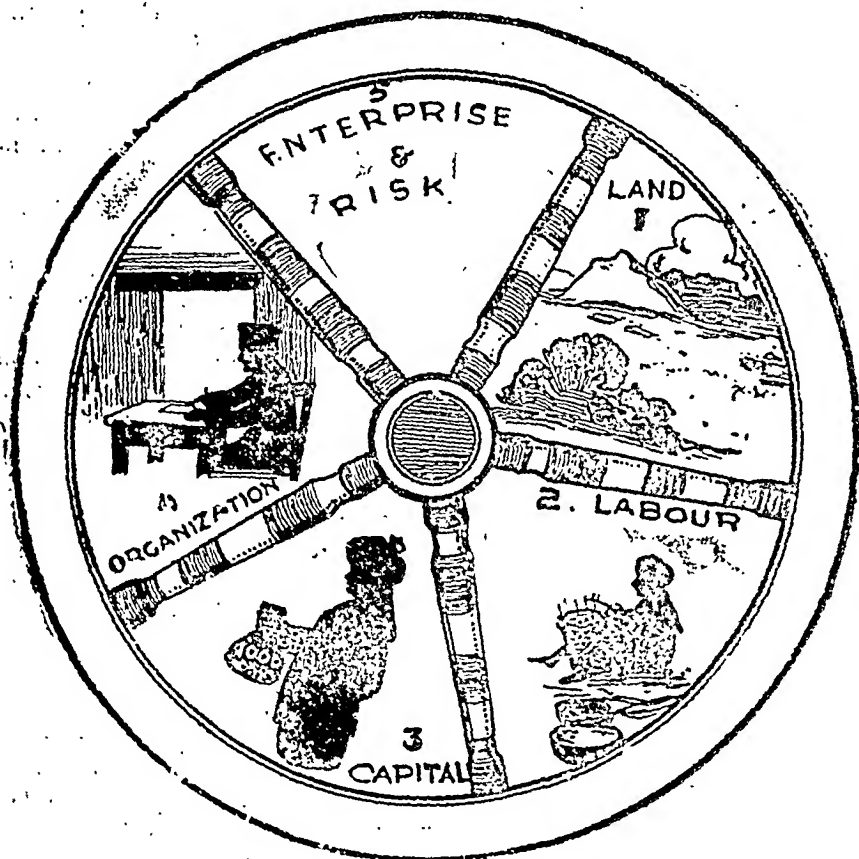


Fig. 28. Illustrating Factors of Production or Wheel of Production.

2Adapted from Penon, *Op. Cit.*, p. 32.

a complex form ; wealth began to be produced on a large scale, in big factories and large farms. Such production required enormous natural gifts, immense labour and considerable capital, all of which had to be systematically organised in the act of production. The organization of production, *i. e.*, the bringing into effective co-operation of the various factors, became a very important and separate factor of production. *Organisation* occupies a very important place in the production of wealth in modern times.

Production on large scale involves considerable risk and uncertainty. If the goods produced are not sold, enormous loss is suffered. The risk has become especially great because of the fact that the markets for commodities now tend to become international. *Risk-taking* or *enterprise* has thus appeared as another factor of production.

The factors of production are, therefore, five in number : (i) Land or Gifts of Nature, (ii) Capital, (iii) Labour, (iv) Organisation, and (v) Enterprise. Of these factors of production, the last three are the forms of human activity, whereas the first two are the external aids to human effort.

The meaning of the five factors of production as explained above is only provisional. Their exact definitions will be given in their proper places.

Factors and Agents of Production

The term *factors of production* should be distinguished from the term *agents of production*. Factors of production signify the actual things which are required for production ; while the suppliers of these are known as the agents of production. Land, labour, capital, organisation and enterprise are factors of production ; while landlords, labourers, capitalists, organisers and entrepreneurs (or enterprisers) are agents of production.

Illustration

The various factors of production used by, say a village weaver, a Banaras brass-worker and a cotton textile factory-owner, may be studied on a comparative basis with a view to elucidate and illustrate their relative importance in different forms of production.

Land or Gifts of Nature. The village weaver does not require much land or gifts of nature. He simply needs a small plot of land where he can fix up his loom, he does not use water-power or electricity. The Banaras brass-worker generally needs more land to set up his workshop, though electric power is rarely used by him. The cotton textile factory requires pretty large quantity of land. The factory occupies a big plot of land while electric power is used for the operation of machinery. Its climatic requirements are also definite or the atmosphere must be humid so that the thread may not break when it is being spun.

Labour. The village weaver does not require much labour. Generally he depends upon his personal exertion and is sometimes helped by the women and children of the family. The Banaras brass-worker requires larger amount of labour. He works himself and also employs some apprentices or labourers. In a modern cotton textile mill, however, immense quantity of labour is needed, employing as it does hundreds and thousands of hands each day.

Capital. A village weaver requires small capital for the purchase of his ordinary loom and raw material which is generally cheap. The Banaras brass-worker has to manage for large capital for he has to equip himself with various implements like chisel, furnace, etc. The raw material used by him is also more costly. The capital invested in a cotton textile mill surpasses both of them. The large factory buildings, the gigantic machinery, huge stock of raw materials and large stock of goods awaiting sale, involve enormous capital.

Organisation. The village weaver does not require much organising skill in his trade which is usually simple and of a small scale. The Banaras brass-worker, who has to handle more capital, requires the organising skill to a greater degree ; but his need is not considerable. Organisation assumes supreme importance in a modern textile factory. In the acquisition of gifts of Nature, labour, capital and enterprise and in bringing them into the most effective co-operation, real skill of organisation is required.

Enterprise. In the trade of village weaver with small capital and small output, risk or enterprise is meagre. The brass-worker has to undertake greater risk because he invests more capital and his output is larger. The greatest risk is borne by the owner of a modern textile factory who has to look after large markets, who cannot expect a fixed demand for his produce, and who has large capital at stake.

§ 2. RELATIVE IMPORTANCE OF THESE FACTORS

Attempts are sometimes made to discuss the relative importance of different factors of production. Such attempts are associated with much difficulty for two reasons. Firstly, when all the factors of production are necessary in the act of production, it is rather difficult to decide which is more important and which is less important. Secondly, the owner of every factor of production wants that greater importance should be attached to the factor owned by him. Capitalists award the first place to capital ; labourers to labour ; landowners to land ; while organisers and enterprisers do not lag behind in pushing forward the claim of their priority.

The importance of these factors can be easily shown. Of all the factors of production, labour plays an active part and sets the

CHAPTER 26

THE LAWS OF RETURNS

The tendency towards diminishing returns is not an economic theory but is one of the most commonplace facts of agriculture. The very existence of rental and sale-values of land sufficiently attests it.—*Devanport*.

§ 1. INTRODUCTION

If a manufacturer, or a cultivator, or any other businessman wants to increase his output, he has to increase the quantity of the various factors of production used in his business. The returns due to additional quantities of productive resources are not fixed. In some cases the businessman finds that if he increases the quantity of the various factors of production, the return (*i. e.*, the output) due to each successive dose (or unit) of productive resources will go on increasing. This tendency of the return due to each successive dose to go on increasing is known as the *Law of Increasing Returns*. This tendency encourages a businessman to increase the scale of his business. This, however, does not always happen. In some cases the return due to each successive dose of productive resources goes on diminishing. This tendency of the returns due to successive doses to go on diminishing is known as the *Law of Diminishing Returns*. This tendency discourages a producer from increasing the scale of business. In certain cases, the return due to each successive dose will be found to remain fixed or almost constant. This tendency of the return due to each dose to remain constant is known as the *Law of Constant Returns*. These three laws of returns occupy a central position in production and need detailed study.

§ 2. THE LAW OF DIMINISHING RETURNS

The Law as Applied to Agriculture

The law of diminishing returns has special application to agriculture and is usually associated with it. Every cultivator knows that this law operates and he benefits by this knowledge, though he cannot express it in the shape of a law due to his illiteracy.

Any cultivator would tell you that, after a certain stage in cultivation, the application of an additional *dose*¹ (or unit) of labour and capital to a particular plot of land does not bring about as much return as the previous dose. For instance, if the first unit

¹The term "dose" of labour and capital was first used by James Mill who is followed by Marshall, and has now become a permanent acquisition to economic literature.

produces 50 maunds of rice, the second unit would produce, say, 47 maunds, the third only 41 maunds and so forth. Additional dose of labour and capital, applied to the same plot, thus gives diminishing returns.² This tendency is known as the Law of Diminishing Returns.

It should be noted that the total yield does certainly increase after the application of every fresh dose. But since the return due to the application of each fresh dose is persistently diminishing, the total return increases at a diminishing rate or less than proportionately.

This Law of Diminishing Returns as applied to agriculture has thus been formulated by Marshall: "An increase in the capital and labour employed in the cultivation of land causes, *in general*, a less than proportionate increase in the amount of produce raised, *unless it happens to coincide with an improvement in the art of agriculture.*" It should be carefully noted that the law relates itself to the *amount of the produce raised* and not to its price.³

The reason why diminishing returns are obtained from land is not far to seek. The productive capacity of the soil is limited and is subject to exhaustion. When the first dose of labour and capital is employed to a particular plot of land, it uses up a certain portion of the productive capacity of the land. The second dose, when employed, has less productivity to exploit as compared with the first dose; consequently the yield due to the second dose is not so heavy as due to the first dose. This phenomenon goes on repeating itself with every successive unit.⁴

Illustration

We shall illustrate this law by a concrete example. Suppose a cultivator has got a plot of land. He applies to it the first dose of labour and capital, which gives an yield of 90 tons of rice. The application of the second dose of labour and capital pushes up the

²If things were not as they are in this respect if, we could increase the crop of a given piece of land indefinitely, upon the sole condition of proportionately increasing labour and expenditure, the tillers of the soil would not hesitate to do this: instead of increasing the size of their farms, they would reduce them to the smallest possible area, because the smaller the area, the easier it is to manage a farm. The simple fact that things are not as we have just supposed, and that poorer and less favourably situated land is in fact constantly brought under cultivation demonstrates that in reality we cannot expect a piece of land under given conditions to yield more than a limited crop.—Charles Gide, *Principles of Political Economy*, pp. 95-96.

³It is important to remember that the return to capital and labour of which the law speaks, is measured by the *amount* of the produce raised independently of any changes that may meanwhile take place in the *price* of produce.—Marshall, *Economics of Industry*, p. 94.

⁴Since diminishing returns are obtained at a fixed cost, the cost of production per unit goes on increasing. Hence this law is also styled as the *Law of Increasing Costs*.

total yield of 160 tons. When he applies the third dose, the total output is raised to 220 tons. The fourth dose similarly increases the total produce to 265 tons; the fifth to 300 tons; and the sixth to 320 tons. The application of each new dose increases the total output but the output due to each successive dose goes on diminishing. The first dose, in our illustration, produces 90 tons of rice. The first and second doses together produce 160 tons; the second dose, therefore, produces only $(160 - 90 =)$ 70 tons of rice. Similar calculations will show that third dose yields 60 tons; the fourth, 45 tons; the fifth 35 tons; and the sixth 20 tons. These results are tabulated below :

Doses of Labour and Capital			Total Output (in tons)	Output due to each dose (in tons)
1st	...	...	90	90
2nd	...	...	160	70
3rd	...	...	220	60
4th	...	...	265	45
5th	...	...	300	35
6th	...	...	320	20

Diagrammatic Representation

The law can be represented diagrammatically as follows :

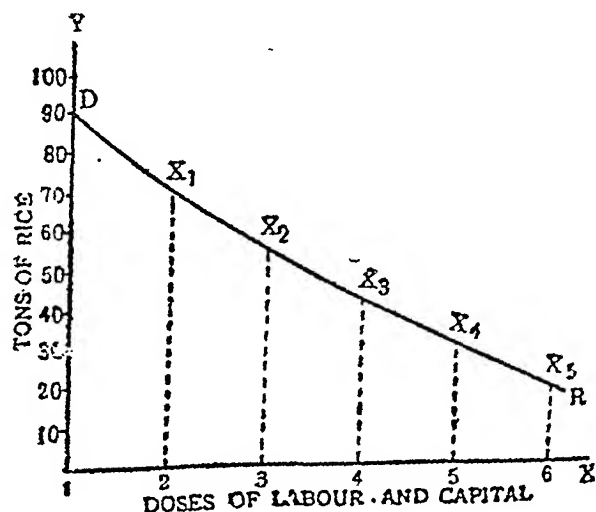


Fig. 24. Illustrating the law of diminishing returns

In this figure doses of labour and capital have been measured along OX axis, and tons of rice along OY axis. The figures of the output due to the several doses as given in the above table have been plotted on the graph and the points have been joined. The curve DR is thus obtained. This is the curve of Diminishing Returns. It is a slopy curve which indicates that the returns due to each additional dose go on diminishing as the number of doses of labour and capital goes on increasing. OD line represents the return due to first dose; $2X_1$, the return due to second dose; $3X_2$, that due to third dose; and so on. These lines go on decreasing in size, thus illustrating the diminution in returns due to successive doses.

Limitations of the Law

The statement of the law as given by Marshall consists of two very significant expressions: (i) *in general* and (ii) *unless it happens to coincide with an improvement in the art of agriculture*. These two expressions constitute the two limitations of the law and are discussed below.

(i) *In General*. The law of diminishing returns is true in general; but it does not operate if the land is under-cultivated, i. e., if labour and capital employed to a plot of land are not adequate to use up fully its productive capacity. To give a concrete example, if a cultivator owns 1,000 acres of land and devotes negligible quantities of labour and capital to it, the productive capacity of that big plot will not be completely exploited. And if he applies another dose of labour and capital to that plot, the yield due to it may increase because of the fuller utilisation of the productive capacity of the soil. But once the stage of full cultivation, that is, full utilisation of the productive capacity of the land, is reached, diminishing returns will certainly be obtained. The law sets in operation only after the point of full cultivation of land. If we consider the output obtained from a piece of land from the very beginning, we will find that the application of the first few doses gives increasing returns; to be followed by constant returns; after which diminishing returns appear. Fig 25 on p. 198 represents these varying tendencies; AB represents increasing returns, BC constant returns and CD diminishing returns. The stage of full cultivation is reached at the point C; and as is shown by curve CD—diminishing returns are obtained after this point. 'In general' drops a curtain over the phenomenon up to the dotted line O'C; and offers to our view simply CD curve, the curve of diminishing returns.⁵

(ii) *Improvements in the Art of Agriculture*. The law will operate only if the application of successive doses of labour and capital

⁵Some writers feel that 'in general' means that law is generally true in a majority of cases, but there are a few cases in which it does not hold true. This interpretation of the term 'in general' is incorrect because there is not a single case in which the law does not operate.

does not happen to coincide with an improvement in the art of agriculture. It is thus a static law and does not apply to progressive agricultural industry.⁶ If means and methods of production continue to remain the same, the law is bound to operate. Improvements in the art of agriculture, like the use of improved implements and machinery, utilisation of better fertilisers, and provision of improved irrigation facilities, counteract the

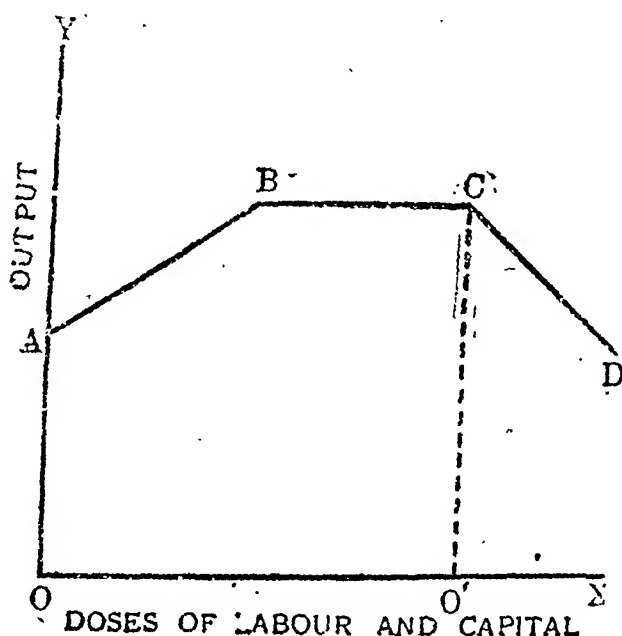


Fig. 25. Curve showing the varying tendencies of the Laws of Returns.

tendency of the soil towards exhaustion ; they may, in some cases, even increase its productive capacity, irrespective of the number of doses already applied to it, and cause successive

⁶The law of diminishing returns is presented as applying not to progressive agricultural industry as a whole, but merely to a particular area of land cultivated in accordance with the knowledge available at particular time. It is a static law, helpful in accounting for the phenomena of any given period, such as migrations of population to new lands, the slow rate at which the wealth known to be contained in a particular time is taken out, or the failure to get every possible horse-power out of a waterfall, but not a law of progress. Some economists, it is true, have believed an analogous law of diminishing returns to hold good, every long periods of time, of progressive agricultural industry as a whole. They admit that in the last one hundred and fifty years this law has not applied to progressive countries, since invention and discovery have kept well in advance of any tendency of population to increase or natural resources to become exhausted, but they maintain that these years have been highly exceptional
Seager, *Op. Cit.*, pp. 130-31.

doses to yield increasing returns. The law, therefore, holds true only if no such improvement takes place.

The above are the two important limitations of the law. To these may be added another limitation, if we may venture to call it as such, namely, that it applies to the quantity of the produce raised and not to its price. As already remarked, the price of the produce raised is a factor with which we have got nothing to do here. It is the *quantity* of the produce raised which we have to keep in view.

Decreasing Returns and Increasing Cost

In the above discussion we have focussed our attention on *return* due to each successive dose ; and we have seen that this return goes on diminishing. But what happens to *cost per unit*? Does it increase when returns decrease? Yes, that is so. The explanation is simple. The cost of each dose is by assumption the same and unchangeable hence when an additional dose gives less return it means that the incurring of the same cost results in a declining return. The cost per unit, as such, goes on increasing. This can be illustrated with the help of the table given on page 196. Suppose the cost per dose is Rs. 100. This means that the cost per unit, when only one dose is applied, is Rs. $\frac{100}{90}$ = Rs. 1.11. The cost per unit goes up to Rs. $\frac{200}{160}$ = Rs. 1.25 when the second dose is applied. Further results are set out in the following table :

Doses of labour and capital	Total cost	Total output	Cost per unit
	Rs.	Tons	Rs.
1st	100	90	1.11
2nd	200	160	1.25
3rd	300	220	1.36
4th	400	265	1.50
5th	500	300	1.66
6th	600	320	1.87

If we plot the cost curve, it will show an upward tendency. In diagram 26, the CC' curve, which is the cost curve, is a rising one.

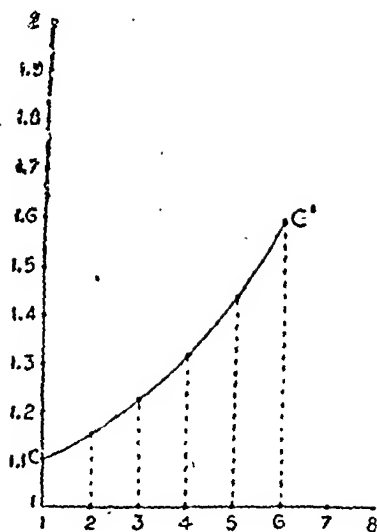


Fig. 26.

It is thus clear that if we focus attention on cost per unit and not on return, we can say that as we apply successive doses of labour and capital, cost per unit in general goes on increasing, unless there is a simultaneous improvement in the art of production. In this shape, this is known as the Law of Increasing Cost. The Law of Decreasing Returns, in other words, is also known as the Law of Increasing Cost.

General Statement of the Law

We have discussed above the law of diminishing returns as applied to agriculture where it operates very forcefully and without exception. But it applies to other spheres as well. In general terms, it can be

stated as below: In general, if one factor of production is kept fixed, the application of every additional dose of other factors brings about diminishing returns, other things remaining the same.

Applications of the Law

In the above description of the law, we have studied its application to agriculture where it is universally true. At some time in the progressive cultivation of every field, sooner or later according to the state of agriculture, a stage will be reached after which every additional dose of labour and capital will result in diminishing returns. The law applies to various other industries as well. It applies, for instance, 'to grazing lands, to the mine, the forest and the sea. It governs the cost of producing fish and whale oil; fuel and timber for manufactures; coal, iron and copper, for the furnace and the forge; wool for clothing, and the carcasses of cattle and sheep for food'. The more important applications of this law are discussed below:

(1) *Fisheries.* Fishing in ponds, tanks and lakes is subject to the law of diminishing returns. Just as the application of more doses of labour and capital uses up the capacity of the soil more and more, similarly every catch makes the fishing tank or lake less prolific, with the result that further efforts are not rewarded equally well.

Such is probably not the case with sea fisheries. Sea fish multiply so fast that fishing by men does not diminish their number. Thus a fish known as *Long* lays 18,500,000 eggs in a year, i.e., from 50,000 to 60,000 eggs per day. Other varieties of fish are

also surprisingly procreative. Some writers, however, seem to hold the opposite view and feel that even sea fisheries are subject to the law of diminishing returns.

(2) *Mines and Quarries.* The law of diminishing returns operates in the working of mines and quarries as well. As the labour and capital applied in the working of a mine increase, the lower and deeper strata have to be dug. Deep digging requires elaborate, costly and laborious arrangements for proper lighting, for conveying air further inside the mine and for transporting the mineral to the pithead. The expenditure of each successive unit of labour and capital, as such, produces less than proportionate minerals.

(3) *Building of Houses and Shops.* The law is also applicable to the building of houses and shops. If more labour and capital are applied to a particular building, higher storeys will be raised. The wastage of material and time, and the cost involved in the construction of these storeys will go on increasing for bricks, lime, mortar and workers will have to be carried much higher than before. The application of each dose of labour and capital will, therefore, be rewarded less handsomely than the previous unit.

(4) *Pottery.* Even pottery is subject to this law. Earthenwares are made out of clay which is to be dug out. The deeper one has to dig up with a view to obtain clay, the more labour and time it requires. The return from pottery, as such, begins to decline with the application of further labour and capital.

(5) *Manufacturing.* While agriculture is subject to the law of diminishing returns, manufacturing is said to be subject to the law of increasing returns. This is, of course, true. But if the conditions under which the law is conceived to apply in agriculture are also present in the case of manufacturing, the law is bound to operate even in the latter. In agriculture we take land as fixed in quantity and other factors are increased in amount. Similarly, in manufacturing, if we keep one factor, say, labour or raw materials or capital fixed in quantity, and increase other factors, diminishing returns are bound to follow.

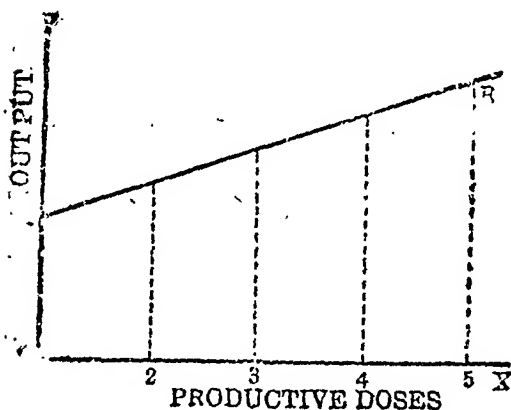
§ 3. THE LAW OF INCREASING RETURNS

Just as the law of diminishing returns is applicable to agriculture, similarly the law of increasing returns is applicable to manufactures. If we apply fresh doses of labour and capital to a manufacturing industry, each successive dose will yield increasing returns. This law of increasing returns has been stated by Marshall as below : "An increase of labour and capital leads generally to improved organisation which increases the efficiency of the work of labour and capital".

If we measure the doses of productive resources along OX axis and output along OY axis, the law of increasing returns will be

represented diagrammatically by a curve like IR in the following graph.

The curve IR shows an upward tendency and the dotted lines go on increasing in length, which shows that the return due to



each successive dose goes on increasing in amount.

In manufacturing industries the law of increasing returns applies due to a variety of reasons. The application of fresh doses increases the scale of production so that all the internal and external economies of large-scale production are made available. Secondly, in a manufacturing industry the various factors of production can be combined in an ideal proportion.

In the case of agriculture, one factor of production, namely, land remains, more or less, fixed, while the quantities of other factors are increased. There is no such limitation in the case of manufacture, since the supply of all the factors of production is elastic. The most profitable portion of the various factors of production can, therefore, be easily secured. Finally, new inventions and new processes of production appear so frequently and regularly in the sphere of manufactures that they push further away the point of diminishing returns. At any particular time, a manufacturing industry knows certain methods of production and its productive capacity is definitely limited; as such, an increase in the quantities of various factors is likely to set the law of diminishing returns in operation, sooner or later. But fresh inventions and new methods of production appear so swiftly in this field that before the point from which diminishing returns begin to be obtained is reached, some new improvement is made which pushes this point further away. This point is shifted forward so repeatedly and constantly that it rarely becomes effective.

Increasing Returns and Diminishing Cost

It should be remembered that in the case we have discussed above increasing returns are obtained by the application of successive doses of labour and capital; and as their cost of each dose by assumption remains constant and does not change, it follows that increasing returns are detained at the same cost. In other

words, the cost per unit goes on diminishing. [The reader is advised to take a practical example, work out the cost per unit and plot the cost curve. This curve will be a declining curve. This should be done on the same lines on which we worked out the whole thing in the case of the law of decreasing returns on p. 199 *ante*.] Hence this law is also known as the *law of diminishing cost*.

§ 4. THE LAW OF CONSTANT RETURNS

When the application of fresh doses of productive resources results in an equal return due to each successive dose, the law of constant returns is said to apply. For instance, if the first dose produces 50 maunds of sugarcane, two doses may produce 100 maunds, three doses 150 maunds, and four doses 200 maunds : so that the return due to each dose is 50 maunds. If we represent productive resources along OX and output along OY, the law of constant returns will be shown by the curve CR, in the following diagram :

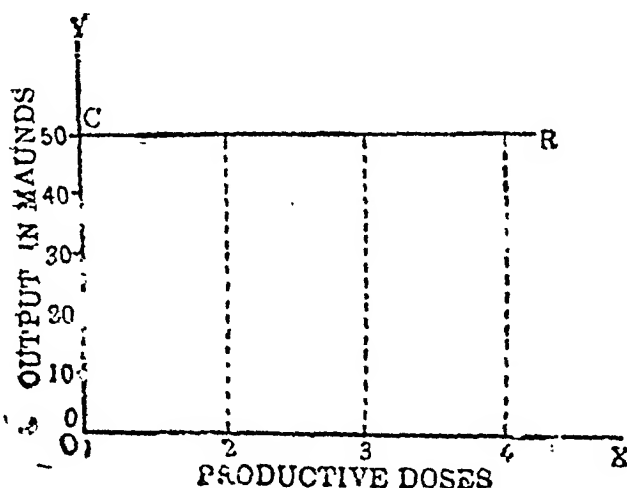


Fig. 28. Showing the Law of Constant Returns.

All dotted lines are equal, which shows that the return due to each dose is the same.

This law operates due to an exact counterbalancing of the tendency towards diminishing returns and the tendency towards increasing returns. This may happen, for instance, in a concern which manufactures sugar as well as grows sugarcane. The former is subject to the law of increasing returns, and the latter to that of the diminishing returns. These two tendencies may, in such a case, be exactly balanced so that constant returns may be obtained. Such cases, however, are rare in practical life. This law is, more or less, one of probability and of theoretical interest only.

Because the returns due to successive doses remain constant here, it follows that the cost per unit also remains unchanged. Hence this law is also called the *law of constant cost*.

§ 5. NATURE AND THE LAWS OF RETURNS

Marshallian Approach to Laws

In the discussion of the above laws we have specifically mentioned the reasons why each of them sets into operation. Marshall approaches the problem from a different standpoint, namely, the part which Nature and Man play in production. Nature is always and everywhere economical. As such, where Nature plays a predominant role in production, as it does in agriculture, diminishing returns are obtained. Man has been trying from the very beginning of his existence to subdue Nature and to prevent this tendency of Nature from operating. Where he is able to get the upper hand, as happens in manufacturing industries, increasing returns are obtained. In the words of Marshall, "while the part which Nature plays in production shows a tendency to diminishing returns, the part which Man plays shows a tendency to increasing returns. If the actions of the laws of increasing and diminishing returns are balanced, we have the law of constant returns." In purely extractive industries, like agriculture and mining, Nature's contribution is supreme and, therefore, diminishing returns are obtained. In manufacturing industries, on the other hand, human control is prominent : therefore, increasing returns are obtained.

Is There Only One Law of Returns ?

There are some economists who maintain that there is only one law of returns and that is of diminishing returns. The other two laws, those of increasing and constant returns, are only conditions precedent of the operation of the law of diminishing returns. They are simply the passing phases : ultimately it is the law of diminishing returns which operates.

This point of view is not quite accurate. There are three distinct tendencies, of different types, and should be so distinguished. In a particular enterprise at any particular time, either the law of increasing returns or of constant returns may be in operation ; and it would certainly be wrong to say, then, that it is the law of diminishing returns which is operating. It should, however, be recognised that these three laws are intimately connected with each other. This, indeed, misleads some economists to make the above-mentioned assertion.

§ 6. THE LAW OF SUBSTITUTION OR EQUI-MARGINAL PRODUCTIVITY

We have discussed the laws of returns. There is another law of production which should also be included in our survey.

This is called the law of substitution or of equi-marginal productivity.

An organiser combines the various factors of production in such a manner as to obtain maximum results out of the given resources. Maximum output at minimum cost per unit, is the ideal which he follows. The realisation of ideal proportions in which several factors should be combined, is a very difficult task ; and herein lies the real efficiency of the organiser. The ideal is achieved through a lengthy process of 'trial and error.' An organiser is always on the lookout of substituting a cheap and efficient factor of production for a comparatively costly and inefficient one. If his efforts are crowned with success and the said ideal is achieved, the marginal productivity of each factor will be found to be more or less equal. This law or principle is known as the law of substitution or equi-marginal productivity. The law of substitution, as applied to consumption, is known as the law of equi-marginal utility. As applied to production, it assumes the name of law of equi-marginal productivity.

There are numerous cases in which one factor is substituted for another. The following are some examples :

(1) An organiser, in need of more space for carrying on production, may either purchase more land or he may raise another storey at the top of the existing building. If he adopts the former course, he will substitute land for capital ; and if the latter, he will substitute capital for land. He will of course adopt the cheaper course.

(2) An organiser, desirous of increasing his output, may employ more labourers or purchase new machinery. If he does the former, he will substitute labour for capital ; and if the latter, he will substitute capital for labour.

TEST QUESTIONS

1. Enunciate and illustrate the law of diminishing returns. Indicate its limitation
2. Does the law of diminishing returns apply to (a) agriculture, (b) fisheries, (c) pottery, (d) mining, (e) manufacturing ?
3. State and illustrate the law of increasing returns. Why is it specially applicable to manufacturing industries ?
4. State and illustrate the law of constant returns. When does it operate ?
5. Indicate the relationship between Nature, Man and the laws of returns.
6. 'There is only one law of returns and that is of diminishing returns'.
Comment.
7. Discuss thoroughly the law of substitution as applied to production.

EXAMINATION QUESTIONS

U. P. Inter. Arts.

1. Explain the law of increasing returns. (1951)

2. Explain clearly the law of diminishing returns. (1947)
3. How does the law of increasing returns apply to manufacturing industries? In what directions does large-scale production make economics possible? (I. A., 1943)
4. Distinguish between the internal and external economics. How do they lead to increasing returns in industries? (I. A., 1940)
5. Explain as clearly and fully as you can the Law of Increasing and Diminishing Returns. (I. A., 1939)
6. State clearly the law of Diminishing Returns. What are its limitations? (I. A., 1931)

U. P. Inter. Com.

- 6a. Discuss the Law of Diminishing Returns. Is it applicable to mines? To river fisheries? To potteries. (1949)
7. State and explain the Law of Diminishing Returns. In what kind of industries will you expect this law to operate? (1947)
8. What is the Law of Increasing Returns? How does it operate in manufacturing industries? (I. Com., 1946)
9. Discuss carefully the Law of Diminishing Returns. (I. Com., 1943)
10. State the Law of Increasing Returns and show how it operates in agriculture and industry? (I. Com., 1940)

U. P. Inter. Ag.

11. Explain the Law of Increasing Returns. Is it also the Law of Diminishing costs? (1951)
12. Explain the Law of Diminishing Returns and show that it is also the Law of Increasing costs. (1948)

Raj. Int.. Arts.

13. Explain fully the laws of increasing and diminishing returns. (1949)
14. Explain the law of increasing returns and show how the law of diminishing cost follows from it. (1944)
15. State and explain fully the law of Diminishing Returns. (1910)

Raj. Int. Com.

16. State clearly the Law of Diminishing Returns. What are its limitations? (1949)
17. State and explain the law of Diminishing Returns. Why is it found operating more in agriculture than in manufacture? (1947)
18. State precisely the law of increasing and diminishing returns and explain the circumstances under which their operation may be withheld or postponed. (1943)

Patna Inter. Arts.

19. State and explain the Law of Diminishing Returns. What are its limitations? (1948 A)
20. Explain the Law of Diminishing Returns and the circumstances in which it can be held in check. (1910 S)

Patna Inter. Com.

21. Explain the Law of Diminishing Returns. Are there any exceptions to this law? (1948 A)

22. Explain the Law of Diminishing Returns with reference to agriculture and mention the conditions under which it operates. (1944 S)

23. State and discuss the Law of Increasing and Diminishing Returns. (1942 A)

Banaras Int. Arts.

24. State clearly the Law of Diminishing Returns. What are its limitations. (1949)

Banaras Int. Com.

25. Describe clearly the Law of Diminishing Returns. (1948)

26. Explain the Law of Increasing Returns. Does it always operate without any check? What are the counteracting forces. Use a diagram to illustrate the law. (1947)

27. State and explain the Law of Diminishing Returns. Is the law applicable in case of mines? Draw diagrams to illustrate your answer. (1946)

Nagpur Int. Com.

28. What is the law of Increasing Returns? (1948)

29. Does the Law of Diminishing Returns apply (a) to the value of a product or its quantity, (b) to total returns or marginal returns and (c) from the very start or after some time. Give reasons for your answers. (1947)

Nagpur Int. Com.

30. Does the Law of Diminishing Returns apply (a) to the value of a product as its quantity; (b) to total returns or marginal returns and (c) from the very start or after some time. Give reasons for your answer? (1947)

31. Explain and illustrate the law of Increasing and Diminishing Returns. (1946)

Sagar Int. Arts.

32. State and explain the Law of Increasing Returns. (1950)

33. Explain fully the Law of Diminishing Returns. (1949 Supp.)

Sagar Int. Com.

34. Carefully explain the Law of Diminishing Returns. Is it applicable to mines and forestry? (1949)

Bombay Int. Com.

35. "The variability of proportions in which the various factors of production can be combined has an important bearing upon the laws of returns." Discuss. (1949)

36. State and examine the law of diminishing returns. Under what conditions will production continue even after diminishing returns have set in. (1918)

Poon. Int. Arts.

37. Explain with illustrations the laws of Returns. (1949)

Poona Int. Com.

38. Describe the Laws of Returns. How is normal value determined under Increasing Returns? (1949)

Andhra Int. Arts.

39. Explain clearly the Law of Diminishing Returns. Discuss qualifications to which it is subject. (1950)

40. Explain the law of Diminishing Returns with particular reference to urban building development and mining. (1944)

Tranvancore Int.

41. State precisely what is meant by the law of increasing returns. To what type of industry does it apply and under what conditions? (1943)

Others

42. State precisely, the laws of increasing and diminishing returns and explain the circumstances under which their operation may be withheld or postponed. (Delhi, I. A., 1946)

43. New countries, extensive cultivation, increasing returns, old countries, intensive cultivation, diminishing return. Explain. (Delhi, I. A., 1935)

44. Explain the Law of Diminishing Returns. Indicate how an increase of population in an old and backward agricultural country is likely to affect the following : (a) rent of land, (b) income per head. (Delhi, I. A., 1941)

45. Carefully explain the Law of Diminishing Returns. Show that this Law operates in all branches of industry but that its influence is more evident and pronounced in the extractive industries or wherever the influence of Nature is permanent. (Delhi, I. A., 1933)

46. State and explain the Law of Diminishing Returns as applicable to production. (Delhi, I. A., 1930)

47. Explain the Law of Diminishing Returns with reference to agricultural land. (Bombay, I. A., 1940)

GIFTS OF NATURE OR LAND

Much of the economy of society depends on the limited quantity in which some of the important natural agents exist, and more particularly land.—*J.S. Mill.*

§ 1. MEANING OF 'LAND'

Definition of Land

The term *Land*, according to dictionary, means the surface of the ground. In Economics, however, it is used in a wider sense to signify all the gifts of Nature, the surface of the ground being one of them. It includes :

(1) the surface of the ground on which we live and move about :

(2) the water covering that surface, *e. g.*, rivers and oceans ;

(3) the minerals hidden below the surface, like coal, gold, etc. ;
and

(4) air, heat, light and rainfall.

Soil and sub-soil on which crops grow, topographical construction, geographical location, climatic conditions, navigable waterways, waterfalls, winds, vegetable and animal resources, fisheries and mines, and natural harbours, are all included under *Land*. In other words, the term *Land* signifies the surface of the earth and the materials above and beneath it. As Marshall aptly observes, "By land is meant not merely land in the strict sense of the word but whole of the materials and the forces which Nature gives freely for man's and in land and water, in air, light and heat."¹

Land, Nature, and Gifts of Nature

It will probably be felt by the reader that the use of the term *Land* in this wide sense is somewhat confusing and misleading, especially to a beginner. If he comes across this term in a book on Economics, he may take it in the literal sense to mean the surface of the earth, whereas it may actually signify much more than that. To avoid this possibility of confusion, some economists have begun to use the expression *Gifts of Nature* in place of *Land*. The term *Gifts of Nature* describes the scope and meaning of this factor of production quite comprehensively and is definitely superior to land. There are some writers who also use the term *Nature*

¹Marshall, *Principles of Economics*.

Tranvancore Int.

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¹Marshall, *Principles of Economics*.

for Land ; but since *Nature* is a word having various shades of meaning, its use is not very advisable.

In the following pages, however, we have made use of the term *Land* in preference to *Gifts of Nature* which is probably the best name that can be given to this factor, because through long usage *Land* has come to occupy a unique position in economic literature and has been used by most economists. It is, therefore, necessary that students should be familiar with its use in the economic sense. Moreover, as Professor Ely observes, "Of what belongs to external nature, it is with land that we have principally to do in Political Economy". This lends further support to the use of the term *Land*.

§ 2. CHARACTERISTICS OF LAND

Land has certain distinctive characteristics which can be easily pointed out :

(1) *Fixity in Quantity*. Land is fixed in quantity and cannot be increased. The area of India is 1·2 crore square miles and cannot be increased. If a mine has one million tons of iron, it cannot be made to yield two million tons. Howsoever we may want abundant sunshine or rain, we must be content with what reaches us by natural processes. Sometimes the available land can be increased by such means as filling in swamps or by making terraces on the mountains. But this is simply a case of the conversions of potential land into effective land and not an increase of total land. This characteristic of fixity in quantity is not shared by other factors of production, all of which can be increased or decreased.

(2) *Land is Not Produced*. Land is a gift of Nature and is not produced by men. As such, so far as society is concerned, land has no cost of production and, therefore, no value ; but so far as individuals are concerned, land does have value and is purchased and sold like any other commodity.

(3) *Passivity*. Land is a passive factor of production. It does not take an active part in the process of production but is itself acted upon by men and machinery. 'In production man is the directing, active agent ; Nature the obedient, passive agency.'

(4) *Varying Suitability*. All land is not equally suitable for all purposes. The land in the heart of a city is suited to the construction of buildings ; a damp plot lying about in a village is suited to the growth of cotton or sugarcane or jute ; whereas a comparatively dry land with cold climate is meant for wheat.

(5) *Effect of Location*. The value of land is governed, to a great extent, by its location, and by the means of communication between it and other lands. Lands nearer to towns fetch higher rents than

those farther away. The value of labour and capital is also affected by distance, but not to the same extent.²

§ 3. FUNCTION OF LAND IN PRODUCTION

Land is a primary and indispensable factor of production ; without land no production is possible. However man may exert himself, even with the aid of all the machinery and skill that he can gather, he can produce nothing unless there is land to which his efforts can be applied. It is land from and out of which we obtain the numerous commodities and forces which make our life complete. From the soil we get the foodstuffs which keep us alive, and the agricultural raw materials which feed the manufacturing industries. Mines similarly provide us with valuable raw material like iron, coal, copper and others which are worked upon in the factories and converted into useful articles ministering to varying human wants. Forests, again, afford timber ; and oceans fish. Even such natural forces as water and electricity are harnessed by human beings for the production of wealth. It is on the surface of land that all our transport lines run ; and even in the air we move about in aeroplanes.³ The function of land in production is, therefore, supreme. The importance of land can be well appreciated from the fact that all the rich countries of the world are the ones which have been endowed with plentiful gifts of Nature.⁴ If U. S. A. is the wealthiest country, it is because she has enormous agricultural, mineral and industrial resources. The same truth applies with full force to Great Britain, Germany, Japan and others. India is unfortunately a country which is very poor in spite of its being liberally endowed with gifts of Nature, because the latter are not systematically exploited to maximum advantage. It is, however, hoped that with the passage of time this unfortunate feature of our economy will be corrected.

²Students may find two other characteristics mentioned in the books. They are : (1) Land is permanent, It does not wear out. This is, however, true of the area of land surface and not of its fertility or other gifts of Nature. (2) The location of land is fixed. This again is true of land surface alone.

³The chief ways in which land helps in production are as follows : (1) It affords support for man and the buildings erected on it. (2) Its *extension* permits the movement of men and goods from place to place. (3) Its *geographical features*, mountains and rivers, etc., aid in many ways. (4) It supplies the *materials*, vegetable and animal, from which all commodities are made. (5) Each portion of it enjoys its share of summer's heat and winter's cold, air, sunshine and rain, without which no form of life could long continue on the earth. See Seager, *Op. Cit.*

⁴The countries of the world most favoured by nature.....are evidently those whose soils bring forth the most common necessities of life of the best quality and in the largest quantity. In these countries the manufacturing power specially prospers, by means of which the nation attains to the highest degree of mental and social development and of political power.—List, *The System of National Economy*, p.131.

§ 4. EFFICIENCY OF LAND

Efficiency of business unit, we have seen, depends upon the efficiency of each factor of production it makes use of. As land is a very important factor of production, its efficiency is a fundamental necessity for securing the efficiency of entire productive process. By efficiency of land is meant its suitability for the purpose to which it is put. Efficiency is measured by productivity. Other things remaining the same, the land which yields larger output is more efficient than the one which yields less output. The efficiency of land depends upon the following conditions :

(1) *Natural Conditions.* Natural conditions, to a large extent, determine the efficiency of land. Of these conditions, the character of the soil, the climate and the sub-soil water are the most important. Some of these factors can be controlled by human beings. The character of soil, for instance, can be partially changed through fertilising, irrigation and otherwise. The climate cannot be changed, but can be modified through afforestation, construction of glass houses and use of humidifiers. The deficiency of sub-soil water can also be made good through artificial irrigation. But in all such cases the results are achieved through the application of labour and capital to land and cannot be reckoned as Nature's bounty.

(2) *The Organising Ability.* The efficiency of land also depends upon the manner in which it is used in the process of production and the way in which other factors of production are combined.

(3) *External Conditions.* Then there are some forces and factors working from without which also affect the efficiency of land. Nearness to the market, the existence of cheap and quick means of transport and such other factors fall under this category. External conditions are very important in determining the efficiency or otherwise of land. It may be that a plot of land is inefficient today because it is far removed from markets and because the means of transport joining it with them are not adequate and efficient ; but if after some time the means of transport are so much developed that the land is practically drawn to the markets, it may suddenly acquire efficiency.

§ 5. EXTENSIVE AND INTENSIVE CULTIVATION

The cultivator of a given plot of land obtains, more or less, a definite quantity of yield at any particular time. If he wants to increase his produce, he can either (1) bring more land under plough ; or (2) he may apply more labour and capital to the same plot of land. The adoption of either of these two methods will increase the output.

In the former method, the area of cultivation becomes more extensive than before ; hence it is known as extensive cultivation.

In the latter case, the same plot of land is operated upon by more labour and capital than before ; in other words, cultivation becomes intensive. This method of cultivation is, therefore, known as intensive cultivation.⁵

A cultivator wishing to increase his output may follow either of these two methods ; but which method he should select out of these two, is more or less a question of cost. If he finds that additional produce can be raised more cheaply by following extensive cultivation than by following intensive cultivation, he will adopt the former method. If, on the other hand, intensive cultivation seems to be the cheaper method, he will naturally adopt it. In case land is so plentiful that it can be had at a nominal cost while labour and capital are comparatively dear, extensive cultivation will be the cheaper method for the obtainment of increased output. The progress of all the countries of the world shows that in early times whenever men felt the necessity of increased agricultural output for supporting increasing population, they resorted to extensive cultivation because land was obtainable in those times merely for the asking. In America the early settlers followed the wasteful process of cultivating a plot of land to be readily abandoned, soon as its yield deteriorated in favour of a new and virgin land. This method was condemned as "earth butchery," and was an extreme example of careless extensive cultivation. But if the land is rare due to pressure of population while labour and capital are comparatively cheap, intensive cultivation is preferred to extensive cultivation. In recent times population has tremendously increased and land values have sprung up sky-high, with the result that intensive cultivation has made rapid progress in almost all the countries of the world. In Denmark and Holland in particular, where population is very dense in comparison to the area available, highly intensive cultivation has to be practised. In the most thickly populated countries of the world, namely, India and China, intensive cultivation though so far held in check by ignorance and poverty, is becoming common.

It must not, however, be supposed that a country either follows intensive method or extensive method. That is not so. As a matter of fact, extensive and intensive cultivation go side by side in a country for a certain length of time ; and while afterwards intensive cultivation may become the more important method, extensive cultivation lingers on for considerable period and it is rare that it entirely vanishes. The application of intensive method depends mainly upon (i) increasing population and (ii) technical

⁵It may be repeated here that all the factors of production are, of course, increased when increased output has to be obtained. But in extensive cultivation, it is chiefly land which is increased, other factors are increased much less than proportionately. In the case of intensive cultivation, on the other hand, land remains fixed in quantity while other factors are increased.

improvement. In the earliest stage of habitation, population is small and technical knowledge limited; hence extensive method is adopted. But as population increases, intensive cultivation becomes growingly necessary and improvements in technique make its adoption possible. At this stage intensive cultivation begins to get popular. In certain cases cultivation may be very backward so that they cannot adopt intensive cultivation. This is the case, for instance, in India. In such a case the speed at which intensive cultivation is adopted will be slow. Nevertheless, the tendency is towards a greater adoption of intensive cultivation; and this tendency gets stronger as population increases further and technical improvements are adopted on a wide scale. And, indeed, we can think of a country where everybody adopts the intensive methods. But this is perhaps an imaginary case as much remote from existing reality as a country which follows only extensive method. In most of the countries today *intensive and extensive methods generally go hand in hand.*

The Nature of Cultivation in India.

India is a country whose population is increasing at a terrific rate. Between 1921 and 1931 it increased by more than 5 crores and almost an equal increase has been recorded between 1931 and 1941. This increasing population has long led to the cultivation of the entire cultivable land; and further increase in the output of agricultural stuffs has been obtained through intensive cultivation.

Another cause of intensive cultivation, besides the pressure of population, is the decay of old handicrafts of India. Due to this decay many of the old artisans and craftsmen lost their old jobs and fell back upon agriculture, there being no other occupation in the country which could absorb them.

Finally, the means of transport and communication have so much developed that the distance between Indian fields and foreign markets has been effectively shortened. Indian agricultural produce can now be sold at handsome prices in foreign markets. The lure of money has driven our cultivators to increase production, which necessity has been satisfied through intensive cultivation, in the absence of free land.

But the process of intensive cultivation has not been carried on smoothly and uninterruptedly. Several difficulties and obstacles have checked this process, the more important of which are mentioned below:

(a) Ignorance and conservatism of Indian cultivators are said to be the principal obstacles in the way. Our cultivators, in many cases, do not know the importance of intensive cultivation; and even if they know, they do not practise it because it was not practised by their ancestors.

This allegation is correct so far as it goes ; but it is often over-emphasised. Those who have been in contact with the Indian cultivator know fully well that he is very shrewd in business matters and can easily grasp the suggestions likely to benefit him ; but he does not want to dabble in uncertain and untested directions pointed out in an official and unsympathetic manner.

(b) Some obstacle is also due to the ignorance of the demonstrators and propagandists of the right and persuasive method of handling cultivators. Generally, they behave like officials and do not create a friendly atmosphere around them in which confidence finds an easy growth, and persuasion to follow the indicated path never falls flat.

(c) Much of the difficulty is the result of the extreme poverty of the cultivators who cannot afford to risk money in costly suggestions or what appears to them experimental measures.

(d) The smallness and scatteredness of agricultural holdings is also an argument against intensive cultivation. For it is not profitable to have machinery or other improved implements when the holdings are tiny and lie scattered in still smaller patches of land.

(e) Sometimes the absence of proper irrigation facilities becomes so important that intensive cultivation cannot be depended upon to increase output. For in such a case, if the monsoons happen to be unfavourable, the application of increased labour and capital may go to waste. The risk becomes so large that cultivators do not think it worth their while to undertake it.

(f) Even if cultivators are able to produce increased output through intensive cultivation, the difficulties of adequate finance and proper marketing often prevent them from taking advantage of this capacity.

TEST QUESTIONS

1. Define land. What are its characteristics ?
2. "Land is permanent. It does not wear out." Judge the validity of this statement by taking different examples of land testing whether they are permanent or not.
3. What is the *role* which land plays in the act of production ? Can production be carried on without the aid of land ?
4. What do you mean by the efficiency of land and how it is measured ? On what factors does it depend ?
5. What do you mean by extensive and intensive cultivation ? Explain fully.
6. What type of cultivation is being followed in India at the present moment ? What are the reasons leading to the progress of intensive cultivation and what are the hindrances, if any, to such a development ?

EXAMINATION QUESTIONS

U. P. Int. Arts.

Explain the meaning of the term *land* in Economics. How does land differ from other factors of production ? (I. A., 1942).

2. In what respect is 'land' fundamentally different from the other factors of production ? How does this affect the law of supply in production ? (I. A., 1930, 1939).

U. P. Int. Com.

3. What is meant by 'Land' in Economics ? How does it fundamentally differ from other factors of production ? (1950)

4. What are the main characteristics of land which affect production ? State and explain them. (I. Com., 1945).

U. P. Inter. Ag.

5. What is land ? What are the characteristics of land in the United Provinces. (1950)

Raj. Int. Com.

6. What are factors that affect the productivity of agricultural lands ? Give illustrations from India. (1947)

7. Define land ? What are the factors that affect the productive efficiency of agricultural land ? (1946)

Nagpur Inter. Arts

8. What are the peculiarities of land ? How do they affect the production from land ? What factors determine the productivity of land ? (1948)

Sagar Inter. Arts

9. Write note on the 'peculiarities of land' ? (1948)

Sagar Int. Com.

10. Define 'Production' and 'Land'. Enumerate the services which 'land' renders to 'production'. (1948)

Banaras Int. Com.

11. What do you understand by 'land' ? Explain the factors that affect the productive efficiency of land. (1949)

NATURE'S GIFTS TO INDIA : PHYSICAL ENVIRONMENT

Poverty in England or America or Germany is a question of distribution of wealth. In India it is a question of its production—*Loveday*.

We shall now make a survey of the natural resources of our country. Nature has, indeed, been very bountiful in her gifts to India. This country has varying climates and different types of soil so that almost all the agricultural commodities are produced within her borders. Her mineral resources are equally enormous. She abounds in iron, coal and copper while other minerals and metals are also procurable in varying quantities. Indian forests provide considerable timber and other minor products. Her fisheries, though still not much developed, are capable of enormous exploitation. India is indeed one of the three countries of the world, the others being U.S.A. and Russia, which can build up a self-sufficient economy. It is mainly due to the plentifulness of land or gifts of Nature in India, and the consequent material richness based thereon, that she was at one time called 'the fairest jewel in the crown of the British Empire.'

The gifts which Nature has bestowed upon India are so important in the economic life of the country that a special study must be made of them. We may begin with a short account of the physical environment, to be followed by forest and mineral wealth, agricultural wealth, and irrigation and power resources. On August 15, 1947, India was divided into India and Pakistan. We have discussed the New India in this book.

The physical environment for India can be studied under four headings :

1. The Geographical Limits and Location.
2. The Geological Structure (Soil.)
3. The Climate.
4. The Flora and the Fauna.

§ 1. THE GEOGRAPHICAL LIMITS AND POSITION OF INDIA

India extends from 8° latitude to 37° latitude north of the equator. In size it is roughly 1,20,00,000 square miles. It is slightly less than Europe *minus* Russia in area and is ten times as large as the United Kingdom. One sixth of the population of the world lives in India.

The boundary of the country is very definite. Its northern boundary is constituted by the mighty Himalayas which have the

distinction of being the highest mountains in the world and which remain clad with snow for the most part of the year. Mountains

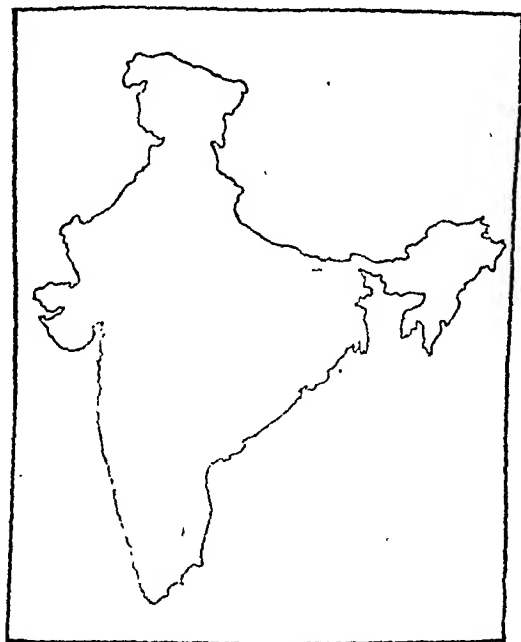


Fig. 29

also extend on the north-eastern and north-western sides of the country. These mountain ranges do not allow the movement of men and material from outside to India or from India to outside except through a few small passes. Just as the northern side of the country is protected by mountain ranges, similarly the western, eastern and southern sides are surrounded by water. On the eastern side is the Bay of Bengal; and on the western, the Arabian Sea; while to the south flows the mighty Indian Ocean. The coastline measures about 6,000 miles. It is not broken, and is, more or less, straight. There are few navigable estuaries and good ports. Calcutta, Madras, Bombay and Vizagapatam are the only ports of any consequence. What wonder, then, if Indians are not seaminded and do not turn out good sailors? But this pitiable state of affairs is making our countrymen realise the necessity of developing themselves into a seafaring nation; while the past history of the country, when she was one of the leading maritime nations of the world, has kindled in them the desire to achieve the past glory.

The geographical position of India is very favourable for international trade, placed as she is in the very centre of the eastern hemisphere. She has, indeed, splendid commercial relations with

the rest of the world. In exploiting this advantage of location at the present moment, she is much handicapped by the absence of her own mercantile marine. If this obstacle is removed in course of time, as the recent trend of events holds promise for, India is sure to emerge as a leading commercial country of the world.

§ 2. THE GEOLOGICAL STRUCTURE OF INDIA (SOIL)

The geological history of this country provides an interesting reading. About a thousand years ago India was not exactly what she is today. She was connected with Africa by land and the sea covered the areas now called Rajputana and the Punjab. As time rolled on, severe volcanic eruptions and other geological changes took place which gave to India her present geological shape.

Soils of India

In the geology of a country, nothing is so important as composition of its soils. Soils play a fundamental and dominating role in the economy of our country, which is preponderatingly agricultural. The success or failure of agriculture depends upon the suitability or otherwise of the soil. India is fortunately gifted with rich soils. It is on the whole dry and yields good produce only if adequate water is available either through natural rainfall or through artificial irrigation.

The soils of India can be divided into the following classes :

- (1) The Alluvial Soil ;
- (2) The Trap Soil ;
- (3) The Black Cotton Soil ; and
- (4) The Crystalline Soil

(1) *The Alluvial Soil.* The most extensive and agriculturally the most important soil of the country is the alluvial soil. Its composition and characteristics are not fixed ; on the contrary, they show noteworthy diversity. In the northern parts of the country, the soil is porous and dry ; in west Bengal, it becomes compact and moist ; while in Peninsular India, it is very compact and wet—it is in fact clayey and dark in colour. It spreads over the East Punjab, U. P., Rajputana, West Bengal, Assam and Gujrat. It is also found in some parts of Madras and of Peninsular India as well. The alluvial soil contains plenty of phosphoric acid, potash, lime and magnesia and can very well bear *rabi* and *kharif* crops.

(2) *The Trap Soil.* The next important variety of soil is the trap soil. When the trap soil is found on the uplands and the slopes of the hills, it is usually porous and light and yields poor crops. In the lowlands, however, it is thicker and drier and capable of yielding heavy produce. It is found in the whole of the Deccan and the considerable parts of C. P., Kathiawar and Hyderabad. It can grow cotton, wheat, millets and pulses very well.

(3) *The Black Cotton Soil.* The black cotton soil covers considerable parts of Southern India. Bombay, Berar, Hyderabad, C. P. and Central India are the chief tracts where it is found. This soil is black in colour and is best suited to the growth of cotton; hence the name, the black cotton soil. This soil is very compact and clayey. It can retain ample moisture, it is also very rich in chemicals and is supremely fertile. Besides being extremely fit for the growth of cotton, it is also capable of producing wheat and millets. Generally *rabi* crops grow very well in it.

(4) *The Crystalline Soil.* The remaining parts of the country have crystalline soil. C. P. Orissa, Chhota Nagpur, Sonthal, West Bengal and U. P. are the most important parts of the country where it is found. It differs widely in physical and chemical properties. On the uplands it is usually infertile, but in lowlands, where it becomes brownish loam, it is fairly fertile and produces various crops of which rice is the most important.

Soil Erosion

The chief problems connected with soil are those of soil erosion and soil exhaustion. The removal of the fine particles of soil by rain water or wind is called soil erosion. Soil erosion is chiefly caused by rainfall. If the rainfall is heavy, it washes away the upper particles of the soil which are soft, loose and productive. It, therefore, does considerable damage to the productivity of the soil. This type of erosion is known as sheet erosion. When the rain falls in torrents, the water runs off into streams and cuts deep into the land and creates deep pits called ravines. Soil, thus, becomes practically unfit for cultivation. Such erosion is known as gully erosion.

Soil erosion has done much damage in India. Erosion caused by torrential rainfall has been, in particular, very harmful. In a large part of Behar and on either banks of the Jumna and the Chambal, vast tracts have been rendered unfit for cultivation by this evil factor. This problem has long been neglected in this country, but it has now begun to attract attention. Some measures have also been adopted to check it.

Soil Exhaustion

Another soil problem in our country is that of soil exhaustion. The loss of fertility by the soil due to overcropping is known as soil exhaustion. It is caused by the raising of heavy crops one after the other without allowing it any rest or applying to it fertilizers and manures. This is an important reason why the yield per acre is very low in India and compares unfavourably with that of other countries of the world. Rightly the Indian cultivators find that the soil is not as fertile today as it was in the past. Increasing population and continued peace have permitted land no rest, and fertility exhausted by continued cultivation has not been restored to the soil.

by the use of rich manures. This problem is causing anxiety to the thinkers and agricultural experts of our country, though much has not been done to remove this shortcoming¹.

§ 3. CLIMATE OF INDIA

After studying the geographical location and geological structure of our country, we come to the study of her climate. If you look at a map of India, you will find that she extends from 8° to 37° north of the equator. The Tropic of Cancer cuts it into two parts, viz., the Northern India and the Peninsular India. The Northern India has temperate climate. The rigour of cold and heat and the humidity of the atmosphere vary from state to state. As a general rule, the northern and western parts have rigorous climatic conditions; and as we move eastwards, they tend to become moderate. Thus the Punjab is very cold in winter season and very hot in the summer season but as we move towards Bengal and Assam, winters tend to become mild and summers moderately warm. Similarly Rajputana and the Punjab have dry climate but in Assam and Bengal the atmosphere is moist. The mountainous and hilly tracts in the Northern India enjoy cold winters and refreshing and delightfully cool summers.

The Peninsular India falls in the equatorial zone. It generally remains hot throughout the year; the difference in temperature during the winter and the summer months is very small. The coastal regions, of course, enjoy equable climate.

Effects of Climate on the Economy of the Country

The climate of a country plays an important *role* in determining the character of its economic life. In Book I we had the occasion to show the relationship between economic and geographic conditions, which finds best illustration in the effects of climate on the economy of a country. We shall discuss this subject below with special reference to India :

(1) The occupations of the people are determined by climate. In our country the available moisture and heat make her best fitted for agriculture. This is an important reason why India is predominantly agricultural.

(2) The diversity of climates causes a diversity in vegetable, mineral and animal products and makes life rich, varied and delightful. In India, for instance, grow all the vegetable products from the wheat of the Punjab to the rice of Bengal and the cocoanuts of the coastal areas. We also possess the various minerals, from the salt range of the Punjab to the coal and iron fields of

¹ For the controversy whether the fertility of Indian soil has deteriorated or not, the reader is referred to R. C. Datta, *Report on High Prices*.

Bengal, Behar and Orissa and the gold fields of Mysore. All sorts of animals are also to be seen here, from the Kashmir hill-sheep to the Rajputana camel and Bengal tiger. Such diversity of climate has fitted India pre-eminently for economic self-sufficiency.

(3) Climate also determines the efficiency of the people, since it influences their physical constitution and working capacity. In colder climates people tend to become sturdy, healthy and painstaking, while the hotter climates tend to make them weak and dull. For instance, a Bengali who lives in hot and moist climate is weaker than a Nepali who lives in cold climate.

(4) Climate affects not only the body but also the mind. People living in hot climates cannot do very hard brain work, at least not for long periods, as compared to those living in cold climates. It is maintained by experts that a temperature of 60° F is ideal for manual work and that of 30° F for mental work.

(5) Climate also determines the dress of the people. In cold regions people wear woollen and tight clothes, while in hot regions loose cotton or silk clothes are generally put on. This factor has repercussion on the standard of living and efficiency of the people.

(6) Climate also affects the nature of shelter and building and the planning of cities and roads. In the warmer tracts of our country, a courtyard or *angan* is considered to be an absolute necessity in the house, but it loses much of its importance in cold climates. Climate also determines the type of colours which are preferred. In hot climate, where plenty of sunshine is available, bright colours are liked most; but in cold and cloudy tracts, light and plain colours are usually in fashion.

It is apparent from the above that the influence of climate on the economic conditions of a country is very fundamental. There is indeed much truth in the suggestion that the civilization itself is a product of climate.

§ 4. RAINFALL

Rainfall is one of the two important factors which go to determine the climate of a country, the other being temperature. The rainfall in India is brought about by the monsoons. It is concentrated in a few months, mainly July, August and September. It is not evenly spread and is uncertain in points of quantity and time. Sometimes it falls in torrents and at others it is entirely absent; while periodic fluctuations are frequently noticeable.

Most of the rainfall in this country occurs during the summer months when the sun is north of equator. Due to the position of the sun, air lying over the landmass of India becomes hot and light and rises up. At the time, the pressure of air in the southern oceans increases because the sun is far distant from it. Since air flows from a region of high pressure to the region of low pressure, a wind sets in from southern oceans towards the landmass of India.

It travels thousands of miles over the sea and absorbs enormous quantity of moisture in the way. When it strikes against the mountains, it gives off its moisture which comes down in the form of rains. As this wind blows in summer, it is known as the summer monsoon. It has two branches ; the Arabian Sea branch and the Bay of Bengal branch.

The Arabian Sea Branch. The Arabian Sea branch of the monsoon comes rushing up from south-west and strikes against the Western Ghats where the rainfall is heavy. It also ascends upwards and causes rainfall in other parts of the country. On an average it gives about 130 inches of rainfall. This rain falls in June, July, August and September.

The Bay of Bengal Branch. The Bay of Bengal branch of the summer monsoon rises laden with moisture and faces the eastern range of mountains causing heavy rainfall there. The rainfall at Cherapunji is the highest, being 480 inches on an average ; it was more than 800 inches in 1861. This monsoon also rises upwards till it is obstructed by the mighty Himalayas and gives rain to the most fertile and the most densely populated part of the country, viz. the Ganges Valley.

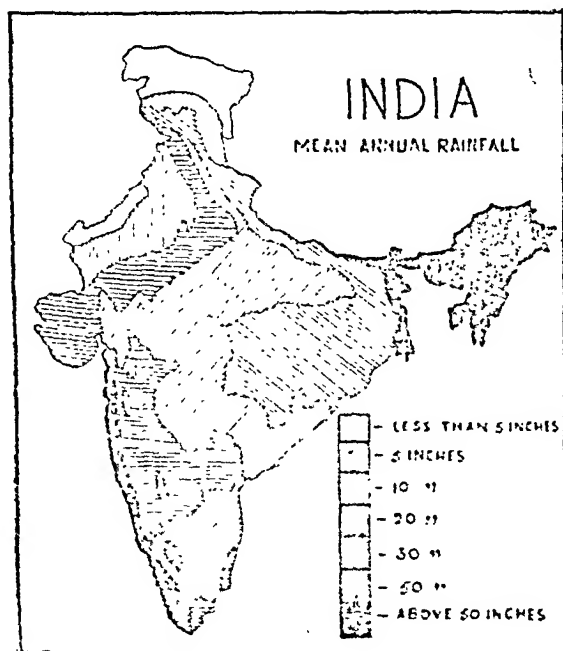


Fig. 29. Showing the Rainfall.

The Arabian Sea branch and the Bay of Bengal branch of the summer monsoon give 90 per cent of the total yearly rainfall to the country. Their importance to the prosperity of India can, therefore, be easily appreciated.

Some of the rainfall is also caused during the winter by what is known as the winter monsoon. The summer monsoon, as we have seen, blows till September, the sun tends to move to the south of the equator. Consequently there is a rise in the atmospheric pressure in the Northern India; and a corresponding decline in the atmospheric pressure in the Southern India. As a result of this change, the Bengal branch of the summer monsoons fails to penetrate into the high pressure regions and takes its turn towards the south. It blows along the western coast and strikes against the southern end of the Peninsula, thus giving rain to the districts north and south of Madras.

§ 5. THE FLORA AND THE FAUNA

The geographical, and climatic conditions determine the vegetable and animal life (the flora and the fauna) of a country. In India these conditions are so briskly varying that her vegetable and animal life is extremely rich. In India we find the tropical products like rice, coffee, sugarcane, jute and bananas; the sub-tropical products like cotton, tobacco, opium and tea, and the temperate products like wheat, maize, barley and potatoes.

The animals found in the country are of numerous species. The bullocks and the buffaloes are the most important of these and are employed for ploughing the fields, for carrying loads and for drawing water. The cows and she-buffaloes are not less important since they provide milk and *ghee* which are largely consumed in the country. Then there are animals like the sheep, the goat, the donkey and the camel which have their respective spheres of usefulness.

§ 6. GEOGRAPHICAL DIVISIONS OF INDIA

From the geographical point of view, India can be divided into the following four broad divisions:

- (1) The Himalayan Region;
- (2) The Indo-Gangetic Plain;
- (3) The Deccan Plateau; and
- (4) The Coastal Strips.

The Himalayan Region

The Himalayan Region comprises the northern mountainous tracts of the country. On the northern side we have Zozila pass which is an outlet from Kashmir; and Shipki pass is an outlet from East Punjab.

The *Himalayas* are the chief point of attraction of this geographical division. They have the reputation of being the loftiest mountains in the world, and play an important part in determining

the economic conditions of the country, as they regulate the rains, the winds, the heat, the cold and the moisture, and through them the supply of foodstuffs and raw materials. Their chief advantages are the following :

(1) They stop the monsoons which rush northwards from the Bay of Bengal and 'Arabian Sea and thus cause rain which is the life-blood of Indian agriculture. If the moisture does not fall as rain, it gets frozen into snow and then descends in glaciers, feeding the rivers throughout the year.

(2) Moreover, they stop the cold winds coming from the Tibetan tableland from entering into India and thus save her from a calamity which might have otherwise made this country a dreary land.

(3) From the Himalayas flow the most important rivers of the country, the Indus, the Ganges and others, which are perennially fed by the snow-clad mountains. Much of the agricultural importance of India depends upon these rivers.

(4) In the lap of Himalayas are also found a large number of water-falls which can be harnessed for the generation of electric power and the industrial development of the country.

(5) The forests covering the southern slopes of the Himalayas retain much of the rain-water among the network of their roots and their floor of dead leaves, by preventing too rapid a surface flow. Throughout the dry season, this water slowly trickles down and saves our rivers from absolutely drying up. The Himalayas, therefore, store and regulate the supply of water to the plains in an equable flow all the year round.²

(6) The Himalayas are responsible in various ways for giving to the country the brisk variety of climates which leads to the growth of almost all the cereals, fibres and beverages.

(7) The Himalayas are so definitely invulnerable that they protect India from a northern invasion, thus guaranteeing peace and law and order, which are so important for economic progress.

(8) Finally, they provide healthy summer resorts and beautiful scenery which are valuable national assets.

The Himalayan region is not economically much developed. This is primarily due to the absence of adequate and efficient means of transport and communication. On the whole the region is self-sufficient, producing as it does almost all of its requirements except salt and petroleum.

There are a number of valleys in this region which are situated in rain-shadow areas and where agriculture is successfully

² Sarkar, *Economic of British India*.

carried on. In the eastern part water is plentiful and citrus fruits like lemons and oranges are grown. The western part, on the other hand, is dry and here deciduous fruits like chestnut and apple are grown.

This region is very rich in forests. The most important trees found here are the pine, oak and sal. However, these forests remain largely unexploited because they are situated in the regions which cannot be easily reached, the means of transport and communication being very poor. At present they are exploited only for their products like *kaththa* and turpentine.

The Himalayan region consists of valuable pasture land where sheep and goats graze and produce abundant wool. Some minerals, including gold, are also found here.

The Gangetic Plain

The second geographical division of India is the Gangetic Plain. This stretches from the Vindhyas in the south to the northern mountain ranges. It consists of very large plains, traversed by several rivers, which enrich it by the fertile alluvial soil washed down by them. A group of rivers (with Indus as the principal river,) flow in the Punjab (India). Another group of several large rivers including the Ganges and the Jumna pass through the U.P., Bihar and Bengal. The most important river of the region is the Ganges, and, therefore, it is called the Gangetic Plain.

These rivers are economically very important. (1) They have covered the entire land with soft, deep and fertile alluvial soil. Thus they have given to this region the enviable fertility for which it is known throughout the world. (2) These rivers are the perennial source of water and have provided marvellous irrigation facilities. (3) They also shift their bed from time to time and have created an undulating table land. They are generally called "the land-makers." (4) Finally, they are navigable to a certain extent and have made some contribution to the removal of the economic isolation of this region.

Thus these rivers are economically very advantageous. But they are not large and deep and do not allow big steamers to ply throughout or through a large part of their course. And as their course is rapidly changing, trade centres do not develop on their banks.

On account of its large rivers and fertile soil this plain became the home of Aryan civilisation and the birth-place of religions and empires; and is today reckoned as one of the most important agricultural regions in the world. All kinds of cereals, like wheat and rice, of raw materials like cotton and jute, of beverages like tea and coffee, grow here. It is also rapidly becoming an industrial region.

Abundant raw materials, cheap and plentiful labour, and extensive markets for the products, are valuable assets for industrial growth.

The Deccan Plateau

To the south of the Vindhya is situated the Deccan Plateau which looks like a triangle. The Vindhya range is its base, the Cape Comorin is its apex and the Eastern and Western Ghats are its sides. This tract is a table land and has average height of about 1,500 feet. This is indeed the oldest part of the country. It consists of many valleys through which several rivers flow. The Mahanadi, the Godavari, the Krishna and the Kaveri flow towards the East, and the Narmada and the Tapi towards the West. These rivers are not good for navigation since they are very rapid, have several falls and rocky beds.²

In this region large varieties of soil exist, from the fertile and moist black cotton soil to the dry and barren deserts. The rainfall is little and uncertain and the entire region is subject to famines. The plateau is well known for its forests, cocoanut palms and cinchona trees. Sugarcane, oil-seeds, millets and tobacco grow fairly well in the entire region. Madras grows rice and the southern parts grow tea and coffee. Coffee is, however, the most valuable crop.

The Coastal Strips

Besides these three important parts of the country, there are coastal fringes along the eastern and western coasts. The coastal strip lying between the Bay of Bengal and the Deccan Plateau is known as the East Coast or the Karomandal Coast. The strip lying between the Arabian Sea and the Deccan Plateau is known as the Western Coast or the Malabar Coast. The Karomandal Coast is more extensive than the Malabar Coast. These coastal strips possess alluvial soil and are very fertile. They do not have any mountains or rocks.

The western coast is known for cocoanut trees, cotton and spices like pepper and cardamoms. The celebrated Broach Cotton which is the best in India grows in this region. The most important crop on the Eastern Coast is the rice. Cotton and sugarcane are also grown while groundnut and jute are becoming rapidly popular. Hydro-electricity is being generated on an increasing scale and efforts are being made to develop the various industries as well.

² The Deccan rivers, like most rivers in plateau regions, flow in deep gorges and are, therefore, of little value for either irrigation or communication and it will be seen that there is no town of any size or importance on any of the Deccan rivers.—Thurston, *Economic Geography*.

TEST QUESTIONS

1. Describe the geographical limits and location of India.
2. Write an essay on the "Soils of India."
3. Explain the climate of India and describe her flora and fauna.
4. How is rainfall caused in India ? What are its characteristics ?
5. Describe the geographical divisions of India.
6. What is the economic significance of the Himalayas ?
7. What are the advantages and shortcomings of the Gangetic Plain rivers ?

EXAMINATION QUESTIONS

U. P., Int. Arts.

1. Give an account of the soils and climate of India and explain their effects on the economy of the country. (I. A., (1933)
2. Describe the characteristic soil and climatic conditions of the Uttar Pradesh. How do these effect the economy of the State. (I. A., 1929)

Rajputana Board, Int. Arts

3. Explain fully the ways in which monsoons affect the economic well-being of the people of India. (I. A., 1937)
4. What are monsoons ? How do they arise ? Explain the economic effects of the monsoons in India. (I. A., 1935)

Nagpur Int. Com.

5. Enumerate the soils that are found in India and point out their economic importance. (1946)

Other Examining Bodies

6. Discuss the relation between the economic and geographical conditions of a country. (Delhi, I. A., 1937)
7. Write an essay on the Soils of India. (B. H. U., I. A., 1933, 1931)

CHAPTER 29

THE FOREST AND MINERAL WEALTH OF INDIA

In the matter of mining, metallurgy and metal manufacture, as in other respects, India was for centuries self-supporting and in advance of other countries. Her comparative insignificance in this respect at the present day, is due to her failure to advance with the western world in the adoption of scientific methods, the use of improved machinery and the organisation of industry on a large scale—*V. G. Kale.*

§ 1. FORESTS

A valuable gift which Nature has given to India is her forest wealth. Forests are the natural vegetation of a country. Originally a large part of the earth was covered by them, but as population increased, they were gradually cleared to make room for human habitation. The history of our country shows how land was at one time covered with thick primeval forests and was gradually won over to cultivation. In the Gangetic Plain, for instance, practically no forests are left, though in the hilly tracts and sparsely populated regions, they still exist. Approximately one-fourth of the total area of our country is clad with forests, and their economic possibilities are great.

Indian Forests

Indian forests can be divided into several groups. The more important varieties are the following :

- (1) the Tidal Forests ; (2) the Evergreen Forests
- (3) the Monsoon Forests ; and (4) the Mountain Forests.

(1) *Tidal Forests.* Tidal Forests (which are shown in the map on the next page in solid black) are found on the sea coasts, near the tidal creeks and in the deltas of the rivers.

(2) *Evergreen Forests.* Evergreen Forests (which have been shown in the map with vertical lines) exist where the rainfall is very heavy. Naturally they are found on the Western Ghats and in the Himalayan region. The wood of these trees is very hard. They have not been subjected to commercial exploitation to any considerable extent.

(3) *Monsoon Forests.* Monsoon Forests (shown with slanting lines in the map) are found in the regions where the rainfall is not very heavy. They cover the Deccan Plateau and North-eastern

India. They grow well during the Monsoon, when the precipitation is heavy, and protect themselves against evaporation during hot season by dropping down their leaves.¹ The teak and the sal, which are the most important trees in India, are of the monsoon variety. Their value can be realised from the fact that the Government have classed them as 'reserved' with a view to check their indiscriminate cutting.

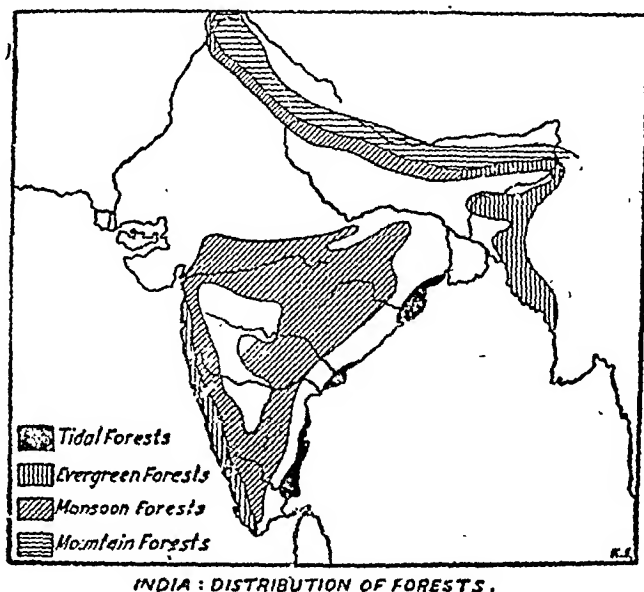


Fig. 31

(4) *Mountain Forests.* In the mountainous regions are found the mountain forests (shown in the map with horizontal lines) which are evergreen. Some of these trees, like the oak, have broad leaves ; while others, like the pine, have conical leaves. The mountainous forests abound in the Himalayan region.

Economic Importance of Forests

Forests are of profound economic significance and¹ richly contribute to the national wealth and welfare. To the agriculturists, they promise rains ; to the Government, revenue ; to industries, raw materials ; and to the villagers, fuel and pasture lands. Their advantages are both direct and indirect.

Direct Advantages. The direct advantages of forests are to be found in the various major and minor products which they yield.

¹Evaporation takes place through leaves ; so that if the leaves are dropped by a tree, evaporation will no longer take place.

The *major products* are the timber, fuel and fodder. Forests yield hard and soft wood, the former being utilised for making strong things like warships, and the latter, for the preparation of the articles of daily use. The supply of fuel is probably of even greater importance for our country which is primarily agricultural. In the absence of wood-fuel, cultivators burn cowdung which could be better used as valuable manure. It has been aptly remarked that with the burning of cowdung, Indian cultivators are burning their prosperity. At present the fuel supply of our forests is not well organised. The forests also supply fodder for animals. It has been calculated that on an average 14 million animals graze each year in the forests of India. Baled grass is also obtained from them, which is fit for being transported to the needy areas, and proves very helpful during the famines.

The *minor products* are the raw materials for various industries, which the forests yield. Our forests produce bamboo, *bhabar* and *sabai* grasses which are used for the manufacture of paper. The pine resin which is utilized in the manufacture of shellac, shop oil cloth and gramophone records, is also found here. Turpentine which is used in varnishes and paints is another valuable raw material.

Indirect Advantages. The indirect advantages of forests are of far greater importance than their direct advantages.

(1) Forests transpire large quantities of moisture which brings down the temperature of the atmosphere. The climate is thus made equable. Again, when the waterladen winds pass through the cold atmosphere overhanging the forests, they get cooler and give off water, thus causing rainfall.

(2) By creating the vegetable mould and dropping their leaves containing food materials, which are mixed up with the soil in the course of time, they enrich the soil with fertility.

(3) They check strong winds, thus saving many tracts from the danger of violent air currents.

(4) Forests regulate the supply of water, reduce the violence of floods and make the flow of water in rivers continuous.

(5) They provide beautiful scenery and develop an aesthetic sense among the people of the country, besides helping in its defence.

Forest Administration

The advantages of forests are so fundamental and far-reaching that the Governments of the various countries look upon them as valuable national assets and take special care in their preservation. Forests are administered by Governments with the main object of the prevention of reckless cutting of the forests, scientific sys-

of silviculture and afforestation. At one time the State in India paid no attention to the forests which were left entirely to the mercy of the villagers and primitive tribes. But during the last 70 years or so, the State has taken them under its own control and much attention has been paid towards their conservation and proper exploitation. The general forest policy of the Government of India was definitely laid down in 1894 when the Indian forests were divided into the following four groups :

1. Forests the preservation of which is essential for climatic and physical reasons.
2. Forests which afford a supply of valuable timbers for commercial purposes.
3. Minor forests containing inferior kinds of timber and managed for the production of wood, fodder, grazing and other produce for local consumption.
4. Pasture lands which are not forests as such, but only grazing grounds.

Steps have been taken by our Government to save the forests from the evil of indiscriminate and reckless cutting, and to improve their yielding capacity. These attempts have been fairly successful.

Backwardness of our Forest Industry

The forest industry of our country is very backward. This can be well appreciated from the fact that the Government revenue from Indian forests is only Rs. 5 crores per annum while in Germany, which has a much smaller forest area, it is almost 9 times as much.

The causes of backwardness are several. Consumers, in general, are not aware of the value, properties and utilities of timbers of all kinds. The Government have so far paid attention to the preservation of forests rather than to their proper exploitation. Much of the backwardness must be attributed to the poverty of the means of transport and communication : tramways and roadways are little developed. Moreover, the system of silviculture is backward and afforestation is fairly absent. The complaint is often made that the forest service is poorly staffed and the commercial side is generally overlooked.

All these defects must be removed if our forest industry is to achieve the proud place it deserves. Through the development of means of communication, in production of scientific silviculture and afforestation, and improvement in the forest service, much can be done. The Royal Commission on Agriculture recommended the appointment of Forest Utilization Officers in the various states, who should be entrusted with the duty of proper utilization of forests.

A closer contact between the Forest and Agricultural Departments was also recommended. It was suggested that forests should be classified into major and minor divisions, the former consisting of the commercial forests and the latter of fuel wood and pastures which should be transferred to the control of the village *panchayats*. Agricultural colleges, it was hinted, should institute courses in forestry for the training of new officers.

§ 2. MINERAL WEALTH

Of equally great, or perhaps of greater, economic importance are the mineral resources of a country, which are entering more and more into the modern industrial life and even the domestic lives of the people. The modern industrial progress is fundamentally based on machinery and power which are produced from iron and coal respectively, the two most important minerals. Our country is quite rich in various minerals. Minerals are associated with old rocks. Naturally, therefore, the Peninsular India, which has the oldest rocks in the country, abounds in them; while the Northern India, which is fairly young, is poor in this respect.

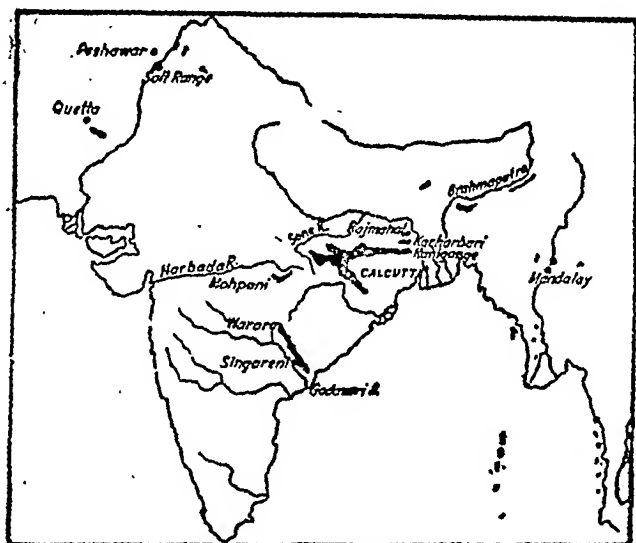
Coal

Coal is the most important mineral in this country. The annual output of coal is about 20 million tons. It is, of course, nothing in comparison to the output of Great Britain, which comes to 500 million tons per annum; but excluding Great Britain, India is the largest producer of coal in the British Commonwealth.

Indian coal comes almost entirely from the system of rocks known as the Gondwana System. It extends over the Peninsular India including Bengal and Bihar. Jharia is the most important coal area, producing, as it does, 50 per cent of the entire coal output of the country. Raniganj coal-field comes next in importance, adding another 25 per cent of coal. Then there are various minor coal-fields in Madhya Pradesh and Hyderabad. There is also the Tertiary System of rocks which produces 2 per cent of the total output of coal which is found at its two extremities, viz., Bengal and the Punjab.

Coal-mining industry of India is not much developed and has to face a large number of obstacles. India has a hot climate which does not favour underground work; labour is not very efficient; while coal-cutting machinery is in little use. Moreover, most of the coal is concentrated in Bengal and Bihar and has to be transported over long distances before it reaches the centres of consumption, which increases the cost. It, therefore, finds it difficult to compete with the South African and Australian coal which finds its way in Indian markets. Indian coal-mining industry can develop if railways consent to reduce freight on the carriage of coal. As

most of the Indian coal is soft, the popularity of soft coke in India homes can be depended upon to improve this industry.



COAL DISTRIBUTION

Fig. 32

Iron Ore

Fortunately India is extremely rich in iron ore. Our ore is not only enormous in quantity, but it is as rich in content as Nature can provide. Orissa is the largest producer of iron ore. The district of Singbhum and the states of Mayurbhanj, Bonai and Keonjhar are well known for iron ore. In Orissa the ore need not be dug out ; it has simply to be collected from the surface. The next important state for iron ore is the Madhya Pradesh, where the districts of Balaghat, Durg and Chanda are noteworthy. Ore is also found in Mysore.

Indian ores acquire special importance due to the fact that the Indian deposits are the only easily accessible rich ores in the whole of Asia. Iron ore cannot be economically exported in the raw state ; and is, therefore, turned into pig iron which is exported. We have been preparing pig iron at a competitive price. We are the principal suppliers of pig iron to Japan ; while we have caused alarm to America and United Kingdom by under-selling them in their own markets.

Petroleum

Petroleum shares with coal the honour of supplying power to various industries. India is very poor in petrol. It is found only

at the two extremities of the Indian mainland, *viz.*, Burma and the North-West Frontier Province. Burma is now separated from India and the N.-W. F. P. petroleum has now gone to Pakistan. Now the only supplier is Assam where some oil is produced from Shale in Digboi. These deposits have been worked for a very long period and have now become exhausted. Oil refining is only imperfectly carried on in India and all the by-products are not obtained in the process.

Manganese

Manganese is used for the manufacture of high-speed steels. India was at a time the most important producer of manganese ; but since the inauguration of the Five Years' Plans in Russia, she has been outstripped by that country. Manganese is produced in India chiefly in M. P., Balaghat and Nagpur being specially important for it. Bombay also produces manganese near Ratnagiri. Formerly we used to export manganese to the United States in large quantities, but now she draws her supplies from U. S. S. R. Our exports now go to the United Kingdom and France.

Mica

Mica is non-conductor of heat and electricity and is, therefore, utilized in the manufacture of electric materials. India is the largest producer of mica in the whole of the world. It is found chiefly in Bihar. Some blue mica is also produced in Travancore.

Gold

India produces about 5 per cent of the world's output of gold. Almost the entire supply comes from the Kolar gold mines of Mysore. They have been worked for a very long time ; and the metal has now to be mined from great depths. The output, however, is small.

TEST QUESTIONS

1. What are the forest resources of India ? Discuss the types of Indian forests.
2. Show the economic importance of forests. What is the object of forest administration ?
3. Is Indian forest industry backward ? If so, why ? Can you suggest measures for the improvement of this industry ?
4. Write an essay on the "Mineral Resources of India."

EXAMINATION QUESTIONS

U. P., Inter. Arts.

1. Write a note on Mineral Resources of India. (1950)
2. Give a short account of India's mineral wealth, and discuss its importance to the future economic development of the country. (1948)
3. Write a short note on the mineral resources of India. (1947)

4. "The natural resources of India are very great. What is required is their proper conservation, development and use." Explain this statement, particularly with reference to water power, forest and minerals (I. A. 1940)

Rajputana, Inter. Arts.

5. What is the importance of forests in the national economy of this country? Describe the policy pursued by the Government to develop forests. (I. A., 1939)

6. Describe the distribution of raw materials in the different parts of India and state their importance in the development of our industries. (I. A., 1932)

Other Examining Bodies

7. What are the factors that lead to the economic prosperity of a country and how far are they found in India? (Delhi, I. A., 1928)

8. Discuss the mineral resources of India, with special reference to coal and iron. (B. H. U., I. A., 1938)

9. Discuss how far the mineral resources of India are adequate for the industrialization of the country. (B. H. U., I. A., 1931)

THE AGRICULTURAL WEALTH OF INDIA

In quite physiocratic fashion the mass of Indian people attribute to the soil almost exclusive productive capacity, and other industries appear to them as more or less parasitical. This is but natural in a social economy in which agriculture predominates and the deep attachment of the people to the soil is thus easily accounted for.—V. G. Kale.

The geographical conditions have made India one of the most important agricultural countries of the world. India is mostly agricultural, three out of every four men being dependent upon agriculture for their livelihood. Every year, approximately 250 million acres of land is cultivated. The value of the total agricultural produce comes to nearly 1,000 crores of rupees. The crops grown in India can be conveniently divided into :

- (1) Food crops, like wheat, rice, millets and pulses ; and
- (2) Non-food crops, including beverages like tea and coffee, and raw materials like cotton and jute.

Food crops are, however, much more important than non-food crops. About 80 per cent of the total cultivated area (200 million acres) is given to the former and the remaining 20 per cent (50 million acres) to the latter.

From the point of view of seasonal growth, crops may be divided into *rabi* and *kharif*. The *kharif* crop requires plenty of water and is sown in the beginning of the rainy season. It is ready in September, October and November. *Rabi* crop does not require much water, is sown in October and November, and is ready in March and April.

§ 1. FOOD CROPS

Indian agriculture, as said above, is mainly concerned with the production of various food crops. Rice and wheat are the most important of these crops and are followed by barley, maize, millets and pulses. Fruits and vegetables are making slow but steady progress while sugarcane has carved out for itself an important position.

Rice

Rice occupies the biggest total area, about 60 million acres (28% of cultivated land) in a good year, with an annual yield of about 172 million tons. Over a great part of India rice is the principal food crop, but even with the comparatively large pro-

duction of rice in India, there is annually a big import from Burma, an import which may go up to 1,000,000 tons a year, to supplement the internal supply.

Rice requires abundant heat and moisture for its growth. It is, as such, mostly grown in the damp and hot parts of the country as is shown in the adjoining map. West Bengal, Bihar and Orissa are the most important rice-growing tracts. U. P. and Madras also grow rice.

Rice is grown in different soils and under different climatic conditions in this country with the result that its varieties are numerous. Compared with the average yield of some other rice-growing countries, the Indian average appears to be small. Recently the importance of proper research in rice has been realised and schemes of rice research financed by the Indian Council of Agricultural Research and the Empire Marketing Board have been instituted.



Fig. 33

Wheat

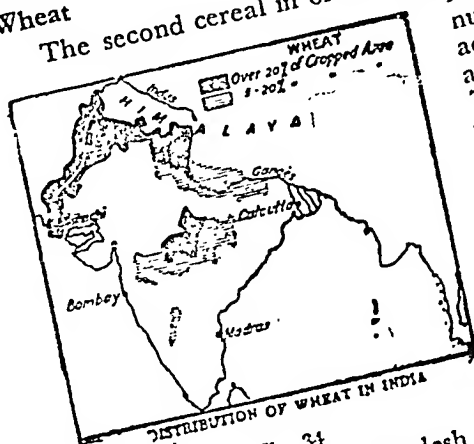


Fig. 34

The second cereal in order of importance in Indian agriculture is wheat, of which there is annually a total of about 22,000,000 acres (10% of cultivated land) and a total output of from 7,000,000 tons. Unlike rice, wheat requires little moisture and cold climate. As such it is grown in India as a winter crop when these conditions are available. As appears in the adjoining map, the East Punjab and the U. P. are the most important wheat-producing regions in India. They contribute together no less than 75 per cent of the total output of the country. Madhya Pradesh is also noted for wheat. The quality of Indian wheat, however, is poor. It deteriorates further as a result of defective threshing which causes other grains and rubbish to mix with wheat. Efforts are being made to improve the quality. Experiments are being carried out in the various

agricultural colleges and at the Imperial Research Institute with this object in view. The Government have appointed a standing committee to deal with the various wheat problems. Improved varieties of wheat are now grown and cover about 7 million acres of land. Success has also been achieved in grading of wheat, and Pusa 8, Lyallpur 5, and Kanpur 4 have become very popular.

Since the opening of the Suez Canal, India had been exporting wheat to other countries of the world, but later on exports became very nominal, disappearing altogether more recently. As a result of Partition, large wheat-growing tracts have gone to Pakistan. Now we have to import wheat in large quantities to maintain our population. Efforts are being made to produce all the wheat we require inside the country.

Barley

Barley, like wheat, is a winter crop and is grown along with it. It is a cheap grain and is largely consumed by the poor. It is, therefore, grown very extensively and is to be seen almost everywhere. U. P., Bihar and Orissa are, however, the important barley regions. Barley is not much exported.

Maize

Maize or *Makka* is grown in warm and wet climate, just like rice. It is chiefly grown in Northern India, particularly in U. P., Bihar and Orissa. It is used as a foodgrain and is consumed locally.

Millets

Millets constitute an important group of crops in the country and consist of several varieties. They are consumed by the poor people and the cattle.

The most important millets are the *joar* (Sorghum) and *bajra* or kambu (the Bulurch millet). *Joar* requires more fertile soil than *bajra*. Their production follows the quality of soil. As these grains are very cheap, they are grown carelessly, often without manuring. Bombay, Madras and U. P. are the chief regions of production. East Punjab grows *bajra* but not *joar*. On the other hand, *joar* grows well in M. P. where *bajra* is not produced.

Another millet, which is chiefly grown in the South (in Mysore, Hyderabad and Madras) is the finger-millet or *ragi*. It requires irrigation and is a dear crop. The poor look upon it as a luxury.

Pulses

India has a great range of pulse crops. These pulse crops are important both from the point of view of husbandry and of nutrition. They are an invaluable phase in many rotations, helping to

keep up the fertility of the soil, which purpose they also perform when grown (as they often are) as mixed crops particularly with millet, ripening and harvesting first. In the realm of nutrition they are sources of protein particularly necessary in a country where the bulk of the population is vegetarian. They are also important from the point of view of animal nutrition, to which they contribute in a variety of ways, e g., by their seeds, by their husks and by the green parts of the plant. Their yield is fairly good. The chief varieties of pulses are *arhar* and *chanz*, *urd*, *moong* and *masoor* are less important varieties.

Fruits and Vegetables

The cultivation of fruits and vegetables is at present carelessly carried on in the country but the demand for them is increasing and scientific methods of cultivation are slowly becoming popular.

Fruits. India produces a large variety of fruits of which bananas, guavas, pomegranates, jack fruits, melons and cocoanuts are very common. The consumption of fruits in this country is slowly but steadily increasing and some fruits like mangoes have begun to be exported. It is also being widely recognised that fruit culture is a successful remedy against the uneconomic nature of holdings. Helped by these two factors, fruit industry is likely to make an advance in future ; but the varieties and the methods of cultivating fruits require considerable improvements. To these ends a good deal of effort is being devoted by Agricultural Departments and by the Indian Council of Agricultural Research, the body which is charged with the task of stimulating, co-ordinating and helping to finance agriculture and animal husbandry research throughout India.

Vegetables. The consumption of vegetables in India is very large. Vegetables are grown in all the villages and in the suburbs of cities. They can be transported for sale over short distances but long distance trade in vegetables has not yet made its appearance. Some well-known vegetables of the country are potatoes, cauliflowers, tomatoes, cabbages, brinjals and peas. It is expected that with the development of rapid means of communication and the introduction of cold storage, the cultivation of vegetables, as of fruits, will increase.

Spices

The consumption of spices in India is very large, for Indians have a habit of taking spicy things. Turmeric and chillies are found almost everywhere. Cardamums, pepper and ginger are grown on the Malabar and Travancore coasts.

Sugarcane

India is one of the most important sugarcane-growing countries of the world. She is only next to Cuba in this respect.

Sugarcane is grown in fertile soil and requires high temperature and fairly well distributed heavy rainfall. Artificial irrigation is favourable to its growth. The most important region producing sugarcane in this country is the, U. P. The East Punjab, Bihar and West Bengal are other important regions.

Since the grant of protection to the Indian sugar industry in 1932 and the consequent rapid advance of the same, the growth of sugarcane has been tremendously stimulated. Not only has the quantity of sugar gone up, but its quality has also been improved. About three-fourths of the total area under sugarcane is now devoted to the improved varieties. The improvement of sugarcane cultivation, the study of its pests and diseases and the investigation of its physiology are being carried out at a chain of research stations throughout India, also at the Indian Agriculture Research Institute at New Delhi and its sub-stations, while the technological side is looked after by the Indian Institute of Sugar Technology at Kanpur.

It is interesting to note that only 15 per cent of the total sugarcane produced in the country is used in the sugar factories. About 20 per cent of the sugarcane is devoted to chewing and other purposes. The remaining 65 per cent is converted into *gur* which is largely consumed by poor villagers.

§ 2. NON-FOOD CROPS : BEVERAGES AND DRUGS

The important beverages and drugs which grow in this country are tea, coffee, tobacco and opium.

Tea

India is the most important tea-producing country of the world. Tea is plucked from a shrub which grows in the subtropical climate. It requires heat and moisture for its growth. If some stagnant water accumulates in the soil, it injures the shrub. Hills are, therefore, generally used for the growth of tea. A well-drained light soil is ideal. Assam is the most important tea-growing state in India and is responsible for about one-half of the total output. Bengal is another important producer. Madras follows suit, though it is of secondary importance.

The internal consumption of tea is rather little, so that most of the tea produced is available for export. India meets about 40 per cent of the world demand for tea. United Kingdom is our best customer of tea. Of late, keen competition from Java and Sumatra has brought about a crisis in the industry and over-production is common. To meet this problem, the industry has been following a policy of restricting the output associated with a vigorous propaganda in favour of tea consumption with remarkable success.

Coffee

Coffee is another sub-tropical crop. It requires for its growth moderate heat and equable temperature. It is, therefore, ideally grown in Southern India : Mysore, Koorg and Travancore being specially noted for it. India exports coffee in large quantities. It also imports it from Java and Ceylon, much of which is re-exported. Taking imports and re-exports into account, her internal consumption of coffee is very little.

Tobacco

Tobacco is an important item in the consumption of the Indian people and grows luxuriantly in India. It is chiefly produced in Madras, West Bengal, Bihar and Orissa, while Gujrat and Bombay are also noted for it. The harvesting season ranges from December to June—February, March and April being the common months for the *rabi* crop.

The tobacco produced in the country is largely consumed internally. It is used for smoking *hukka*, while people take it with *pan*. The quality of Indian tobacco is poor. Efforts are being made at the Agricultural Research Institute, Pusa, and elsewhere to grow improved varieties of tobacco such as may be used in cigars and cigarettes.

Opium

Opium is obtained from poppy seed. It is a decaying crop. About 30 years back it was in fact the money crop. In 1911 the Government of India concluded an agreement with China by which all exports to China were stopped. This fact, associated with the fall in the consumption internally, has ruined the industry. In India opium is grown under strict Government control in Bihar, U. P., Indore, Gwalior and Bhopal.

§ 3. NON-FOOD CROPS : RAW MATERIALS

The important raw materials that are produced in the country are the cotton, jute, oil-seeds and indigo.

Cotton

Among purely commercial crops cotton holds the first place with an area of 12 million acres. Before Partition India ranked as the second cotton-growing country in the world, the U. S. A. holding the first place. But much of cotton-growing area has now gone over to Pakistan. Whereas the annual output of cotton of undivided India was 35 lacs of bales, now after Partition it is only 24 lacs of bales. Cotton loves dry areas having brilliant sunshine, irrigation facilities and warmth. In India it is grown chiefly in the black cotton soil which is responsible for 50 per cent of the total Indian produce.

Bombay, and M. P. are the most important states for cotton. The Punjab, Madras and U. P. are also known for it.

Indian cotton is known as the short-staple cotton. It is, as such, of poor quality and cannot produce fine cloth. Cotton in India is not only poor, but its yield per acre is also low. Efforts are now being made to improve its quality and output per acre. The Agricultural Department and the Indian Central Cotton Committee have done valuable work in this connection. At the instance of the above Committee several Cotton Acts have been passed with a view to check adulteration and improve the marketing facilities.

Before Partition we were important exporters of cotton. But now we have to import it from Pakistan, Egypt and U. S. A.

Jute

Before the partition of the country, India had the distinction of being the most important jute producer in the world. Jute requires for its growth damp and warm climate and rich, moist soil. The conditions were ideal for its growth in Bengal, and consequently Bengal had become the most important jute-producing province in the Undivided India. Of our total output of jute, 90% used to come from Bengal and the remaining 10% from Bihar, Orissa and Assam. But as a result of Partition, most of the jute-growing area has gone over to Pakistan. Now India produces annually only 15 lacs bales of raw jute (whereas Pakistan produces 65 lacs bales).

Even before Partition, efforts were being made in Assam, etc., to increase the jute-growing area. After partition, even other states have begun to grow jute, among which Madras is foremost. In 1948, jute was grown on about 20 lakhs acres of land, and the total output of jute went up to 20 lacs bales. But this quantity is very insufficient for our mills and we have to import large quantities of jute from Pakistan. Let us hope that efforts being made in our country to grow more jute are crowned with success.

Silk

Another noteworthy product of India is silk. Silk worms live on the leaves of the mulberry trees. The latter grow in sub-tropical and temperate zones. In India silk is grown in Assam and Bengal and in some mountainous tracts.

Oil-seeds

Oil-seeds are primarily the export crops, or the "cash crops". They include groundnut, linseed, sesamum and mustard. Oil seed crops are of a precarious nature and their price is very fluctuating. In spite of these facts, however, oil-seeds are widely grown.

Groundnut. Groundnut was not always grown in India and was introduced probably only some time back. But it now occupies

quite an important place in the agricultural economy of the country. Its extension has been rapid and continuous especially since 1924. It is grown in the Southern India, mainly in Madras, Bombay and Hyderabad. The present war has hit the groundnut trade on account of loss of markets and prices have slumped in consequence.

Linseed. Linseed is meant mainly for export. In the beginning of the present century India satisfied the entire world demand for linseed, but severe competition of other countries has contracted its foreign markets. The chief states for linseed are Madhya Pradesh U. P., Bihar and Orissa, though there is a good deal of cultivation scattered over other parts of India. In the Crop Planning Conference held in India in 1934 this was one of the few crops the expansion of which was definitely recommended.

Sesamum. Sesamum grows in Peninsular India. Most of it is consumed locally, only 10 per cent of the total produce being exported.

Rape and Mustard. Rape, mustard and others, which come under the class of cruciferous oil-seeds, are widely grown in Northern India where they form an important group of crops. A large portion of these seeds is crushed locally for home consumption, both in small village installations and also in modern factories.

The Problem of the Exports of Oil-seeds. The question of the export of oil-seeds is an important problem in Indian Economics. If the Indian oil industry is developed, these seeds can be crushed internally; and we can thus obtain not only the oil but also the residue or the oil-cake which is a valuable manure. At present these seeds are exported and we import in exchange only oil, the manure being lost by us. There is, indeed, a group of Indian economists who definitely advocate the prohibition of the export of oil-seeds.

Indigo

Indigo was a very important crop of the country some time back. It was produced at that time in Madras, Bihar, Orissa, U. P., and the Punjab. The introduction of synthetic (aniline) dyes, which are very cheap, has led to the neglect of plantation of indigo. Attempts are being made to revive its cultivation, but the future of the industry is very uncertain.

Note.—For special problems of Indian Agriculture, please see Chapter 43, § 1. More examination questions on these topics are also given at the end of that chapter.

TEST QUESTIONS

1. What are the important food crops of India? Give detailed notes on the more important ones.
2. Write short notes on wheat, rice, cotton, jute and tea.

3. What are the important non-food crops falling under the group of beverage and drugs ? Discuss their growth and disposal.
4. Write a short note on the agricultural raw materials grown in this country.

EXAMINATION QUESTIONS

U. P. Int. Arts.

1. Write a short note on Intensive and Extensive Cultivation. (1948, 1946)
2. "Intensive and Extensive Cultivation go hand in hand in a country." Elucidate this statement. (1945)
3. Draw a map of India and show in it principal crops, minerals and manufactures. (1941)

Rajputana Int. Arts.

4. Write note on Extensive and Intensive cultivation. (1949)
5. What are the main agricultural products of India ? Account for their geographical distribution. (1940)

Nagpur Int. Arts.

6. Write note on Intensive cultivation. (1949)
7. Write note on (a) Intensive cultivation and Extensive cultivation. (b) Food crops and cash crops. (c) Causes of Indian famines. (1947)
8. What reasons would you adduce to explain the low yields of Indian crops as compared with those of other countries ? (1945)

Nagpur Int. Com.

9. Write notes on :
 - (a) Extensive and Intensive cultivation.
 - (b) Food crops and Cash crops.
 - (c) Causes of Indian famine. (1947).
 - (d) Famine Relief. (1946).

CHAPTER 31

IRRIGATION IN INDIA

The main object of irrigation should always be borne in mind ; that is, Nature having withheld from plants the moisture necessary to their growth, it becomes necessary to supply the omission. When that object has been attained, the work of the irrigator ends, and to continue farther would be detrimental to the soil, and injurious to plants instead of beneficial.—*D.H. Anderson.*

Adequate supply of water is a primary necessity for the success of agriculture. The importance of satisfactory rainfall in the highly agricultural economy of India can, therefore, be easily appreciated. But the rainfall in India is uncertain in volume, time and place ; and cannot support a regular and stable agricultural industry. To remove this shortcoming, artificial irrigation of fields has been practised by the people of the land from very ancient times and is today a common feature throughout the length and breadth of the country. The importance of irrigation is due to a variety of factors :

(1) Rainfall in India is confined only to three months and is badly distributed, besides being uncertain both with regard to time and place. There are, indeed, some areas of habitually deficient rainfall where cultivation is altogether impossible unless artificial irrigation is resorted to. Rajputana is a good example. Then, there are areas where rainfall is uncertain and which are, therefore, liable to famines. U. P., M. P., Central India and Madras are so liable, and are known as the areas in the famine zone. In all such tracts, irrigation has to be depended upon to save the people from disastrous famines when rains deceive them.

(2) There are certain crops in the country which require a regular and abundant water supply. Such water requirements are not always provided by nature and have to be furnished by artificial irrigation. Rice and sugarcane, for instance, grow mainly through artificial irrigation.

(3) Population of the country is fast increasing and the raising of the second or the winter crop has become essential. Winters being rainless in India, artificial irrigation has to be made use of.

These are the various reasons why irrigation has been a factor of enormous economic significance in the country from times immemorial.

Irrigation Works in India

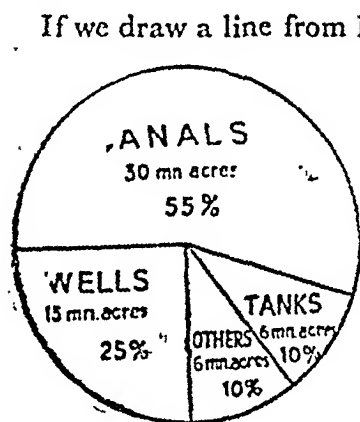


Fig. 37. Showing the relative importance of the various means of irrigation.

If we draw a line from North to South of India through Allahabad, we will divide the country into the western and eastern parts. Irrigation is important in the western part only and not so much in the eastern part. In the western India wherever water is deficient and big rivers are available, *canals* have been constructed and many more are being projected and completed. But the construction of canals requires a mint of money and a regular supply of water: and where these conditions are not satisfied, *wells* have been constructed. The initial and working expenses of the wells are much less than those of the canals. Where neither canals nor wells can be constructed, reservoirs

or *tanks* have been made where water is stored up during the rainy season to be made use of according to necessity. Canals, wells and tanks, then, are the most important irrigation works in India. The total irrigated land of the country comes to less than 60 million acres, *i. e.*, about one-fifth of the total cultivated land of India. Of this, canals irrigate 55%, wells 25%, tanks 10%, and other sources 10%.

§ 1. WELL IRRIGATION IN INDIA

Well irrigation is important throughout India, but it is most important in the U. P. where no less than over 11 lakh wells are in use. Madras is the next important state with 6.5 lakh of wells. Punjab (I), Bombay, C. P., and Rajputana follow in order.

Well irrigation is prevalent throughout the length and breadth of our country. Wells have been constructed wherever favourable conditions exist, *i. e.*, wherever water table is high and the soil is soft. High water table is a distinct advantage since the well need not be deep in that case, and the cost of its construction is held in check at the same time. The labour involved in drawing water need not be enormous. Soft soil allows the well to be dug easily and quickly. The alluvial soil is very good from these points of view; it can be easily dug and the wells made in it need not be deep. The black cotton soil possesses the advantage of being compact so that the wells dug in it do not require repairs for long.

Almost ideal conditions for the construction of wells are found in the Gangetic basin which is the most important well region of the country. The western U. P., in particular, is very well known

for it. The whole area from Banaras to Delhi is drilled like a sieve with wells. The black cotton soil area is also an important well region. Bihar and Assam have a fairly large number of wells.

Well Irrigation in U. P.

Tube Wells. U. P. possesses the largest number of wells. In recent times irrigation by wells has been greatly encouraged by the tube well system. Many existing wells have been improved by boring tube wells of large capacity in which electric pumps have been installed; and many new tube wells have been started. Tube-wells have been started in large numbers in U. P. because of active State assistance.

Ganges State Tube-well Scheme in U.P.—Under this scheme, attempt has been made to utilise underground water in Western U. P. to be utilised for a widespread system of irrigation by means of tube-wells. The districts traversed by the Ganges hydro-electric grid are very fertile. But the rivers in this area have only limited supply of water, so that canal irrigation is of no avail. Therefore irrigation can be provided only by wells; and that was the reason why the tube-wells scheme was launched upon in this region. The hydro-electric grid has been a very great advantage in this respect, because the tube-wells that have been set up here are operated by electricity. This scheme has provided over 1,500 tube-wells irrigating about 7 lakhs acres of cultivable land.

Future of Well Irrigation

The future of well irrigation is very bright. The great advantage of wells is their cheapness so that they are within the means of many cultivators. Particularly, the policy of State assistance will surely be found very encouraging. The tube-well system is very efficient and cheap and has a bright future.

§ 2. TANK IRRIGATION

In many places in India rain water is stored up in reservoirs or tanks; and is later on distributed over the cultivated areas in the dry season. Tank irrigation has been in existence in the country from very ancient times. Tanks are very common in the Central and Southern India. In those tracts canals cannot be constructed, because the rivers found there are not perennial and become dry in summers; while the numerous hills and rocks make the digging operation difficult, lengthy and costly. Even wells cannot be dug there because the soil is undulating or hard and the water table is low. Fortunately, the hilly and broken nature of the country makes the construction of tanks or reservoirs easy and possible. Many of the old tanks have been out of use for some time past and are being silted up. Efforts should be made to remove the silt, to repair them and to make them fit for irrigation in every possible way.

§ 3. CANAL IRRIGATION

The most important type of irrigation works in the country are the canals. Canal construction requires enormous capital and is beyond the capacity of poor cultivators. The canals are, therefore, constructed and owned by the Government. The British Government were not the first to introduce canal irrigation in India for there are several ancient canals built by Hindu and Muslim rulers; but British Government certainly laid special emphasis on canal irrigation with the result that India possesses today the most magnificent canal system in the world. The total of the Indian canals is about 75,000 miles which is the largest figure in the world.

Inundation and Perennial Canals.—According to their methods of construction, canals can be divided into inundation canals and perennial canals. Inundation canals are drawn from the rivers without any dam. They do not get water unless the water level in the river reaches a certain height. They receive water only when the river is flooded and not when the water is comparatively little. The Punjab canals are mostly inundation canals. Perennial canals are taken from a river which keeps full of water throughout the year, by putting a barrage across it. Water can be diverted from the river to the canal under controlled conditions. Perennial canals may receive plenty of water, even if the water level in the river is very low. The U. P. and some Punjab canals are of this type.

Distribution of Canals

Most of the canals of the country are found in the U. P. and East Punjab. This is mainly due to the following favourable geographical factors.

(1) The Ganges and Indus together with their tributaries are snow-fed rivers and remain full of water throughout the year. Thus they ensure a constant supply of water to the canals taken out of them.

(2) The rivers in these regions are ideally distributed. The Punjab rivers, for instance, are spread like the fingers of an open hand; consequently irrigation can be easily carried throughout the length and breadth of the state. Moreover, in these states the surface is flat and the soil is soft so that canals can be constructed comparatively cheaply.

(3) The alluvial soil, though thirsty, is very fertile and if water can be brought to it, the cost of canals is soon repaid by the levy of water rates on commercial crops.

The East Punjab Canals

Canal System of the Punjab.—Before Partition, the Punjab possessed the best canal system in the whole of undivided India. Almost the entire agriculture of this province was and is the g

canal irrigation practised here. In the map (Fig. 38) given below have been shown the various canals of the province.

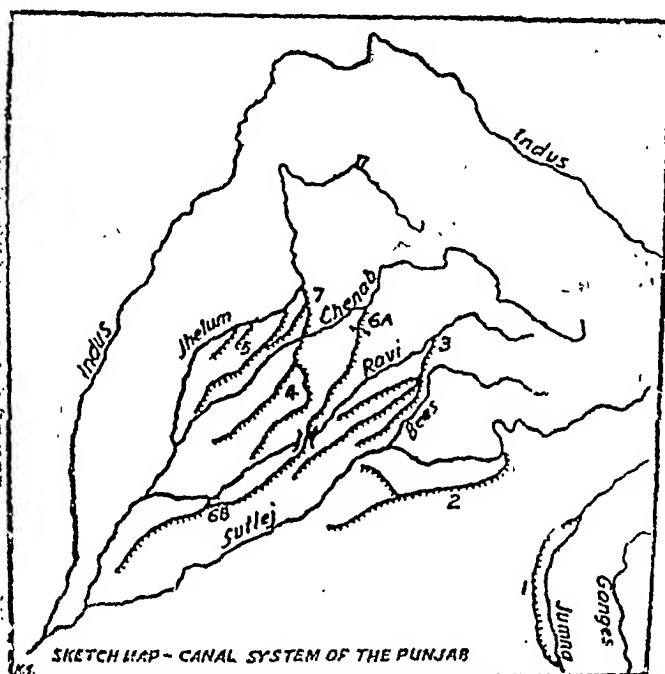


Fig. 38

As is clear from the map, the following were the important canals of the undivided Punjab:

1. Western Jumna Canal.
2. The Sirhind Canal.
3. The Upper Bari Doab Canal.
4. The Lower Chenab Canal.
5. The Lower Jhelum Canal.
- 6.A The Upper Chenab Canal.
- 6.B The Lower Bari Doab Canal.
7. The Upper Jhelum Canal.

} The Triple Project.

6A, 6B and 7, i.e., the Upper Chenab Canal, the Lower Bari Doab Canal and the Upper Jhelum Canal, are known together as the *Triple Project*. It is a brilliant feat of canal engineering skill. The Upper Chenab Canal (6A) takes water from the Chenab just at the foot of the Himalayas. It crosses the Ravi through an aqueduct and continues to flow further under the name of Lower Bari Doab Canal (6B). After the construction of these two canals it was found that very little water was left for the Lower Chenab

Canal (4). To feed the latter, the Upper Jhelum Canal (7) was constructed which takes off water from the Jhelum and carries it to the Chenab. This water is poured into the Lower Chenab Canal (4).

Besides the above, the Sutlej Valley works were completed in the Punjab in 1932-33. The Government of India and the States of Bikaner and Bahawalpur are the co-partners in this project. Its cost has come to about 21 crores of rupees, out of which 9 crores have been provided by the Government of India. It irrigates five million acres of land.

Canal System of the East Punjab. After Partition, East Punjab has been left with the four following canals only :

- (i) Western Jumna Canal—It was constructed in 1800 and gives water to Southern parts of the State.
- (ii) Upper Bari Doab Canal—It was opened in 1860. This has been taken out of the Ravi and irrigates Amritsar and other districts.
- (iii) Sirhind Canal—This canal was opened in 1888 and has been taken out of the Sutlej. It irrigates about 2 lac acres of land.
- (iv) Sutlej Valley Works—We have already given above the details of this canal.

The U. P. Canals

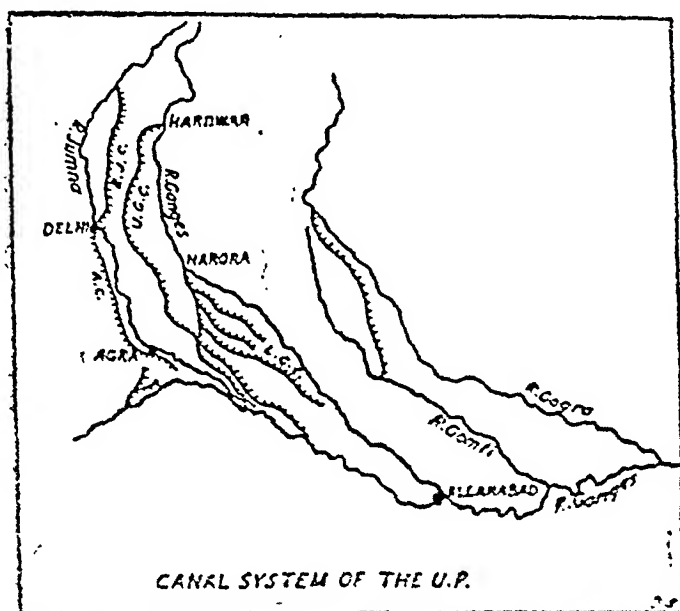


FIG. 59

Main Canals. From the point of view of canals, U. P. occupies the first position in India. All the canals in this state are perennial. Their distribution is shown in the map (Fig. 39.) The important canals are the Eastern Jumna Canals (E. J. C.), the Agra Canals (A. C.), the Upper Ganges Canal (U. G. C.), the Lower Ganges Canal (L. G. C.), the Betwa Canal (near the Chenab) and the Sharda Canal joining the Gomti and the Gogra.

Sharda Canal. The Sharda Canal was opened only in 1928 and is a work of the first magnitude. It has introduced irrigation in most of the districts of Oudh. About one million acres of land is irrigated by it, where sugarcane is mostly produced. It was completed in 1930 and its cost has come to 10 crores of rupees.

Canals in Madras

The Southern India is, as a rule, poor in canals. The oldest and the largest canals of this part of the country are to be found in Madras. Some tidal canals have been constructed in the northern part of the state for famine relief. An important system is the Periyar Canal System. The Periyar is a small river which formerly flowed into the Arabian Sea, but now a tunnel has been built up which diverts its water to the eastern coast where it irrigates the district of Madura. About 10,00,000 acres of land are cultivated by it. The recent work, which was completed only in 1934, is the Kaveri Mettur Project. It has been constructed with a view to improve the existing fluctuating water supplies to the Kaveri Delta.

Dams of Bombay

There are two important dams in Bombay state :

(1) *Bhandardara Dam.* This dam has the reputation of being the largest in India. It takes the water of the tributary of the river Godavari and irrigates about 60,000 acres in the Ahmadnagar district.

(2) *Lloyd Dam.* It is built on the tributary of the river Krishna and irrigates Poona and Sholapur districts.

§ 4. FUTURE PROGRAMME

The water resources of India are great and extensive. Only 6% of the available resources have yet been exploited. The remaining water of the rivers goes into the seas and is not put to any use inside the country. Often the river water causes floods and leads to considerable destruction of life and property. Hence efforts have recently been made to use such river water for irrigation purposes. Recently several new works have been started with this end in view. These new works have certain characteristics. Firstly, they are large-scale measures. Secondly, perennial water resources having all been tapped, attempts are now being

made to collect rain water in a store so that it may be used later according to needs. Thirdly, new projects are multi-purpose projects and they are meant not only to provide irrigation but also to generate electricity, prevent floods, provide places of recreation and enjoyment, etc. The more important of these are discussed below.

Damodar Valley Project (Bengal and Bihar)—The Governments of Bengal and Bihar, with the active support of the Government of India, have taken up a new project which is known as *Unified and Multipurpose Damodar Valley Development Project*. It is proposed to construct dams across the Damodar Valley; and the project will provide (i) flood control, (ii) water for irrigation and (iii) hydro-electric power. This is why it is called "Multipurpose Development Project." This move has been inspired by the T. V. A. (Tennessee Valley Authority) of the U. S. A. which has made what was once an arid waste a smiling region of fields and other economic pursuits. A new body, D. V. A. (Damodar Valley Authority), has been set up to complete and administer this project. It will bring considerable benefits in its train.

This project will provide irrigation water to about a lac acres of land throughout the year. At the same time, the scheme will generate hydro-electricity; and it will also prevent floods which used to visit the Damodar Valley. A sum of about 65 crores of rupees will be spent on this project.

Bhakra-Nangal Project (East Punjab).—Under this scheme, a dam will be constructed on the river Sutlej in a village called Bhakra. Another dam will be built up about 8 miles away from Bhakra, called Nangal Dam. By these measures, water will be stored up; and canals will be taken out of it. An area of about 35 acres will be irrigated by this project. A sum of Rs. 130 crores will be spent on this scheme.

Kosi Project (Bihar and Nepal).—Under this scheme a dam, 750 feet high, will be constructed in Nepal; and from it, two canals will be taken out which will provide water for irrigating land in Nepal and Bihar. This scheme will irrigate more than 20 lac acres of land. It is expected to cost about Rs. 100 crores.

Hirakud Project (Orissa).—This dam is being constructed on Mahanadi river at a place which is nine miles north of Sambalpur. An area of about 11 lac acres of land could be irrigated when this project is ready and its cost is expected to be about Rs 50 crores.

Rampadsagar Project (Madras).—This is the largest multi-purpose project in Madras. The dam that is being constructed on the Godavari, will be the biggest in the world. Three canals will be taken out of it which together will irrigate about 23 lacs acres of land. This scheme will take 12 years to be complete and it is expected to cost about Rs. 90 crores. When ready, the area that it will irrigate will produce about 10 lacs tons of rice, of the market value of Rs. 24 crores per year.

THE POWER RESOURCES OF INDIA

Of the forces provided by Nature which man has used to assist him in his productive efforts, one of the most widespread and one of the most useful is water-power. But, strange to say, it is only within the last few years that there has been anything like an attempt to conserve and to utilize the immense force which lies hidden in every stream and waterfall.—*Penson*.

Just as irrigation is important for the success of agriculture, similarly power is necessary for the success of industrial development. Power really means force or energy ; but it has now come to signify such mechanical energy as may be used in driving machinery. Of the two fundamental essentials for the growth of industries, power is one, the other being raw materials. The gigantic machines of today, which cannot be operated by man and animal, are worked by power. The importance of power for modern industries can be well realised from the fact that the industries tend to concentrate or localise where power is available cheaply and easily. The supply of power is important not only for large-scale industries but also for cottage industries. In Germany, Japan, Switzerland and elsewhere cheap electric power has enabled thousands of cottage workers to earn living in healthy and cheap surroundings amidst their wives and children. In agriculture, again, availability of power has led to the use of various machinery like elevators, tractors, etc. In the field of transport, again, it is the power which provides the motive force. To whatever economic aspect of life we may look, we will find that the *role* of power is supreme.

In our country power resources are numerous. There is hardly any source of power which is not used in India. The chief sources are : (1) man ; (2) animal ; (3) wind ; (4) wood fuel ; (5) coal ; (6) oil ; (7) water.

§ 1. MAN, ANIMAL, COAL, ETC.

Man Power

Man himself is the source of power, though the power he is capable of supplying is not enormous. The man power of a country depends upon the quantity and quality of its population. The population of India is very large, but her people are often weak ; in other words, man power of this country is quantitatively enormous but qualitatively poor. Our countrymen are so poor that they cannot get nourishing diet, healthy shelter and other urgent requirements of life, and are, therefore, physically emaciated. They also fall an easy victim to various major and minor diseases which weaken them still further. Physical weakness is associated

with mental poverty. If the people of this country are not in a position to feed themselves, they are still less able to educate themselves. Man power is, however, cheap because of large population and low standard of living, and will be displaced by machinery only with difficulty.

Animal Power

Animals are also a source of power, and can do some works which are beyond human capacity. Animal power is used on a large scale in India. In the agricultural economy of the country, cattle play a very important part and are the main source of power utilised in drawing water, ploughing fields, transporting commodities, and in other spheres of Indian agriculture. We possess about 6 crores of draught cattle which cultivate 30 crore acres of land, irrigate it, thrash the produce and carry it to the market. Camels, donkeys and mules have also their own sphere of usefulness.

The number of animals in this country is quite large, but their inefficiency is equally prominent. The Royal Commission on Agriculture reported that in whatever other respects Indian cattle may be deficient ; they are not deficient in numbers ! The causes of inefficiency of our animals are various. The most important of them are the inadequacy of proper food supply, and the absence of proper care in breeding, housing and medical attendance. If attempts are made to remove these shortcomings, the efficiency of our animals may improve significantly.

Wind Power

Besides man and animal, wind can also be used as motive power. Inhabitants of mountainous tracts often use it as such, while the cultivators on the plains turn it to good account. In hilly regions wind-mills for grinding corn and lifting water are generally seen. In the plains we have the crude method of winnowing the grain whereby a man drops grain from above in a regular stream while the wind carries away the straw and other foreign matter mixed therewith.

Wood Fuel

Power is also generated by wood fuel. Indian forests are full of such wood, but these forests are not properly and fully exploited at present because of the absence of means of transport and communication and other difficulties noted in a previous chapter. Even if the means of transport are provided, it is doubtful if wood fuel can supply all the power that is required by the country. At present fuel is used mainly for domestic purposes.

It was the recommendation of the Industrial Commission that the method of wood distillation should be made popular because it yields charcoal as well as certain valuable by-products like alcohol and wood-tar which can be sold at good prices thus bringing down the cost of production of charcoal.

Coal Power

Coal is a very valuable source of power. We have already described the coal resources of this country in a previous chapter. The Indian coal is of poor quality and cannot be used in factories. Most of the Indian coal is, again, found in eastern India so that it becomes very costly in other parts of the country due to high transport charges. We cannot, therefore, depend upon our coal resources for the generation of any considerable amount of power at competitive price.

Oil Power

Power is also generated from oil. As already observed, the oil resources of this country are very poor. Oil is found only in Assam in very small quantities. It is of little importance from the point of view of power supply.

§ 2. HYDRO-ELECTRIC POWER

It is rather a drawback of our economy that all the above-mentioned sources of power are inadequate for our purpose and cannot meet our demand completely. But this shortcoming is compensated by our resourcefulness in water power potentialities. Water can be made to generate electricity which is known as hydro-electricity. Hydro-electric power can be transmitted over long distances and used according to necessity. It has made rapid strides in recent years so much so that the hydro-electric power resources of a country may be taken as a good index of its industrial development. The Hydrographic Survey of India, which was carried on according to the suggestion of the Industrial Commission, showed the vast possibilities of the development of hydro-electric power in this country. According to the Central Electricity Commission Report (1950), India possesses resources to generate 25 million kilowatt of electricity. In fact, India can become one of the leading countries in regard to electricity-generation. But at the present time, only 5 lacs kw. of electricity is produced in India each year.¹

Hydro-electric power or water power has several advantages. Firstly, it is the cheapest form of power. Its cost of generation is 75 per cent less than that of coal, fuel or oil. Secondly the "tail water" can be used for irrigation purposes. Finally, electric power can be conveniently, easily and cheaply carried from one place to another through insulating wires.

It appears at the first sight that power schemes, pure and simple, should be generally difficult in India. Because if the power supply is to be continuous, the supply of rain should also be continuous, which is not the case in our country. In India the rainfall is

¹ Central Electricity Commission, *Planning for Electric Power Development in India*, p. 6.

concentrated only during a small period of the year, while rivers with sufficient water throughout the year are practically absent. This difficulty is, however, met by storing water for use during the dry season. Favourable sites for this exist in many parts of the mountainous and hilly regions where very heavy rainfall occurs. The progress already made in utilising such opportunities and the great facilities afforded by the electric transmission of power hold great promise for the future. Hydro-electric schemes can be easily associated with important irrigation projects, the water being first used to drive the turbines at the generating stations and then distributed over the fields for irrigation purposes.

We shall now study the important hydro-electric works in this country.

Mysore Hydro-electric Works

The first important hydro-electric work constructed in the east was that by the Mysore Government on the Kaveri river in 1902. Its main object was to supply power to Kolar gold-fields. The generating station is Shivasundaram which is 2 miles distant from Kolar. This transmission line was for a pretty long time the longest line in Asia. The original plant did not have the capacity to generate the maximum possible electricity from the available water; but the new plant has got this capacity. But the consumption of electric power has been constantly increasing in this region; hence the Mysore Government has constructed two more electric generating stations, one at Shimsa and the other at Jog. These three generating plants are connected with each other.

Kashmir Hydro-Electric Works

The second hydro-electric work in India was constructed by the Kashmir Government. The generating station is near Baramulla, on the river Jhelum. Baramulla now has electric light. From that place power is taken to Srinagar where the transmission line terminates in the State Silk Factory which takes current for driving machinery and for lighting and heating purposes.

Bombay Hydro-Electric Works

The most important hydro-electric works in the Bombay Presidency are situated in the region of the Western Ghats which are specially fitted for the generation of hydro-electricity. Messrs. Tata & Sons, Ltd., have started three "hydrel" schemes in this area. The first scheme has been launched upon by the Tata Hydro-Electric Supply Company which was started in 1915. The hydrel works are situated at Lonawalla at the top of the Bohr Ghats. There are lakes in which the rain water is stored, to be taken ultimately to power house at Khopali.

The second scheme was embarked upon when later investigation led to the discovery of a site on the Andhra river where water

could be generated. Messrs. Tata & Sons thereupon floated the Andhra Valley Electric Supply Company in 1922 for the purpose.

The latest scheme of the Tatas is located on the Nilamula river. The Tata Power Company was floated in 1927 and generated power along the lines similar to the Andhra Valley Scheme. The power is transmitted to Bombay over a transmission line which is 80 miles long. The power is used to contribute to the supply of the two earlier companies, to mills, factories and railways.

These three companies have been operating as one unit under one management. They supply the entire electric power required by the tramways, mills, B. B. & C. I. Ry. and G. I. P. Ry., and by the private consumers in Poona, Thana, Kalyan and the Bombay suburbs. Power is supplied to mills, factories and railways at the low rate of two pice per unit, which is likely to go down still with an increase in consumption.

Madras Hydro-Electric Works

The Madras Government started the Pykara Hydro-Electric Scheme in 1929 and brought it to completion in 1932. The Pykara river supplies the water utilised for the generation of the power.

Mettur Hydro-Electric Scheme is another work which deserves mention. It was constructed in 1936. The Mettur Dam is one of the largest structures of its kind in the world and can impound a total of about 100,000 million cubic feet of water. This storage is meant primarily for irrigation purposes, but is also used for the generation of hydro-electric power.

The third scheme in Madras is the Papnasam Scheme which was opened in 1944. It supplies electric power from Papnasam to Tinnevely and Madura where it joins the Pykara scheme.

Hydel Works in the U. P.

The hydro-electric scheme recently completed in the U. P. is the hydro-electric grid scheme. The Upper Ganges Canal begins from Hardwar and from Hardwar to Aligarh, it has 13 falls. With a view to generate electric power from these falls, seven electric works have been set up. Under this scheme, electricity is supplied to western districts of the U. P. (e. g., Saharanpur, Muzaffarnagar, Meerut, Aligarh, Hathras, Agra, Etah, etc.). The special feature of this scheme is that it passes through rural areas and it supplies cheap electricity not only for lighting purposes but also for irrigation. Hundreds of tube-wells have been constructed in this area which are operated by electricity and which have greatly benefited agriculture.

Hydel Works in the East Punjab

In 1933 the Mandi Project in the East Punjab came in operation. The snow-fed water of Uhl river is used for the generation of

power. The scheme has been formulated in three stages. The first stage produces about 50,000 horse-power from the ordinary discharge of water. The second stage involves the formulation of the storage and would double the power generated. In the third stage, the same water would provide an additional 54,000 horse-power.

Future of Hydro-electricity in India

The hydrel potentialities in our country are not so great now as they were before the Partition, as many of our possible sources of power have gone over to Pakistan. But even then we have considerable water-power resources and they can be used to generate electric power in substantial volumes. In fact, since we have attained freedom, our Government have paid much attention to this aspect of the matter and many new schemes of hydrel generation have either been put under construction or are under contemplation. On the pattern of the T. V. A. (Tennessee Valley Authority) of America, multi-purpose schemes have become very popular in India. Such schemes can at once generate electric power, provide water for irrigation, prevent floods, afford suitable sites for health resorts and sanatoria, etc. We have already discussed the more important of these projects in Chapter 31. They are as follows:—

1. *Damodar Valley Project* (Bengal and Bihar).—It will generate about 30,000 kw. of electric power.
2. *Nangal Project* (East Punjab).—It is expected to generate about 200,000 kw. of electric power.
3. *Kosi Project* (Bihar and Nepal).—It is hoped that it will produce 850,000 kw. each year.
4. *Hirakud Project* (Orissa).—It is hoped this will produce 350,000 kw. per year.
5. *Rampadsagar Project* (Madras)—Is likely to generate 100,000 kw. of hydrel power each year.

These schemes will supply electric power not only to our cities but also to our rural areas. Besides them, special schemes which will supply power mainly to the villages are also under consideration. When all such schemes are completed, the economic conditions of India will without doubt improve in a substantial measure.

Economic Effects of Hydro-Electric Development

The above account reveals what a great advance has been made in recent years in the development of hydro-electricity in our country. This vital economic factor has influenced the economic development of the country to a considerable extent, and has contributed to the prosperity of agriculture and industries. The future development of hydro-electric power may be depended bring about similar salutary results.

Hydro-electric development is likely to be beneficial to our *agriculture*. Cheap and efficient electric power can replace weak and inefficient cattle. Electric power can be made to lift water out of wells, thus making irrigation easy and cheap. Improvements of this type increase output on the one hand, and reduce the cost of production on the other. Agriculturists doubly benefit in this way. Some labour will, however, be displaced as a result of the introduction of hydro-electricity, but it is believed that in the long run cultivators will be more than compensated for this immediate loss.

Rural industries are also likely to benefit immensely from the introduction of hydro-electric power. There are many industries which can be started in our villages but have not yet been set up due to the absence of a satisfactory and cheap source of power. The supply of hydro-electric power is likely to bring such industries into existence. Cotton ginning, oil pressing, decortication of groundnut and other cottage industries may, for instance, come to life and provide subsidiary and alternative occupation to our cultivators and other village-dwellers. The pressure of population on soil may thus decrease. The growth of rural industries will lead to a decentralisation of industries in general and will thus reduce the congestion of industrial towns.

Not only rural and cottage industries but *large-scale industries* have immensely benefited and will benefit in future from the development of hydro-electric power. Many of them could not have seen the light of the day without the assistance of the hydrel power, and several others could not have achieved that excellence in the quality of their produce which they have now done.

TEST QUESTIONS

1. What is the importance of power in the economy of a country? Give an idea of the power resources of India?
2. Write a note on the man, animal and wind as power suppliers in India. What are their defects? Can they render adequate help even if these shortcomings are removed?
3. "Wood, coal and petroleum are found in India and can be made to generate electricity." Comment and expand the statement in its correct form.
4. Why is hydro-electricity considered so important in the industrial life of a country? Does India possess abundant resources of hydro-electricity?
5. What are the important hydro electric works in India? Describe fully.
6. What, in your opinion, have been, and will be, the economic consequence of the spread of hydro-electricity in India?

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. What are the sources of power available in India? In this connection, examine the possibilities of hydro-electric development. (1951, 48).

2. What are the chief sources of power in India ? Describe briefly the chief advantages of development of hydro-electric works in India. (1946).

3. What is the present position with regard to the supply of industrial fuels in India ? What power resources promise good prospects of development in this country ? (1942)

4. "The natural resources of India are very great. What is chiefly required is their proper conservation, development and use." Explain this statement, particularly with reference to water power, forests and minerals. (1940)

Rajputana Inter. Arts.

5. Discuss the principal power resources of India, and enlarge particularly upon the future possibilities of hydro-electricity. (1949, 1942)

Banaras Inter Arts.

6. Discuss the importance of Himalayas in the economy of India. Examine the importance of water power in this connection. (1949)

7. Discuss the principal power-resources of India and enlarge particularly upon the future possibilities of hydro-electricity (1947)

Note.—The "Transport System of India" is sometimes included in Production. We have, however, discussed it in Chapter 56 under Exchange (Book IV) to which a reference may be made.

LABOUR

Since the essence of production is that it leads to the satisfaction of utilities, it follows that any labour of effort that yields utilities is productive. The musician whose performance brings us pleasure does precisely the same sort of thing as the flowers whose blossoms last for few hours.—*Taussig*.

§ 1. MEANING OF LABOUR

The second factor of production is known as *Labour*. It is, like land, indispensable for production. No production, from the simple form of plucking fruits to the extremely complicated form of manufacturing cars and aeroplanes, is possible without labour. You find labourers working in small workshop and in big factories, in fields and in business shops, on docks and at railway stations. Though in the present age, much of the human labour has been substituted by machinery, still some labour has to be used even in the most mechanized establishments. Machinery themselves have to be operated upon by human labour.

The word labour is of common occurrence. In everyday speech it refers to the exertion involved in the performance of a work. The economic sense of the term labour is, however, not so wide. Firstly, it includes the work done by human beings only, and excludes the work done by animals. The bullock which draws a bullock cart, the dog which keeps a watch all through the night, and the donkey which carries the washerman's load every day, all exert themselves but their exertion is not regarded as labour in Economics.

Again, human effort of each and every kind is not 'labour.' Since Economics studies only those human activities which have relation to wealth, *labour refers to only that form of human exertion which is undertaken with a view to obtain wealth or to earn an economic reward.* The exertion made without any economic motive but simply to derive pleasure or to perform some duty towards one's relations or country, is not labour. When you play tennis in the evening, you certainly exert yourself; but since your object is not to earn money but simply to keep yourself hale and hearty, it is not labour. The marker, however, who teaches you how to improve your game, does so for earning his livelihood and his exertion will certainly be called labour. When you go for a picnic along with the servants who carry the needed articles, you do not labour, but the servants do.

Jevons defines labour as *any exertion of mind or body undergone partly or wholly with a view to some good other than the pleasure derived*

directly from the work. Marshall has quoted this definition with approval.¹

It should be remembered that the word labour is used in Economics in the abstract sense as well as in the concrete sense. In the former sense, labour refers to human exertion (as defined above) while in the latter sense, it refers to labourers. The word labour is thus made to apply sometimes to the exertion which a labourer has to undergo and at others to the labourer himself. Students should clearly distinguish between these two meanings of term.

§ 2. CHARACTER OF LABOUR

Labour, as a factor of production, has certain distinct characteristics which may well be remembered :

(1) Labour is indispensable for production, no production being possible without its aid. Even the richest gifts of Nature and enormous stocks of capital cannot produce wealth unless human beings exert themselves and harness them for the purpose.

(2) Labour is perishable. It is lost for ever with the passage of time. If a labourer does not exert himself on a particular day, the labour of that day is lost for ever and cannot be regained.

(3) Labour is not only a means of production but is also its end. Labourers not only help in the production of wealth but they are also the persons for the satisfaction of whose wants production is carried on.

(4) Money can be invested in labour. Money spent in the acquisition of skill, education and physical power does not differ from the money invested in the purchase of factories and machines. Both yield an income. Hence labour is sometimes called 'human capital.'

Land and Labour

Land and labour are both indispensable factors of production, but there are some vital differences between the two. Firstly, land is a passive factor of production and is acted upon by man and machinery ; while labour is an active factor of production and makes use of other factors in the productive process. Secondly, land is strictly limited in quantity—it cannot be increased or decreased ; but the supply of labour can be increased or decreased. It can be increased by increasing birth rate or efficiency of labour or both ; it can be decreased by reducing the birth rate or efficiency or both.

Labour and Capital

Capital and labour have close relationship. Capital is nothing but "crystallised labour". It is just that part of wealth produced by labour, which is used in further production of wealth. But there

¹Marshall, *Principles of Economics*.

are certain well-marked differences between the two. Firstly, while labour and capital are both destructible, the former is capable of recuperation more frequently than the latter. Secondly, labour perishes sooner than capital. Labour deteriorates rapidly even when unused. A worker tends to grow weak with advancing age whether he is idle or busy. Capital, however, does not deteriorate so rapidly. An idle machine may deteriorate, but the loss will be only slight. Thirdly capital can be transferred from place to place and from occupation to occupation more easily than labour. A man who has one lakh of rupees in the Imperial Bank of India can send it in no time to London or New York or Berlin; and an owner of an iron and steel company can sell it any time and re-invest his capital in cotton textile company or sugar company according to his choice. But the U. P. labourer will think several times before making a move to Madras or to Ahmedabad. Finally, money invested in machinery and factory can be easily withdrawn by their sale, but the money invested in education and skill cannot be so easily got back.

§ 3. IMPORTANCE OF LABOUR

Labour is an indispensable factor of production. In simple as well as in complex forms of production, some kind of labour is inevitably involved. Everywhere on the face of the earth, man lives by the sweat of his brow. Even when Nature is bountiful in her gifts and human wants are as simple as they are few, some exertion is necessary for the acquisition of desired articles. If fruits are wanted, they must be plucked; if flesh is desired, animals must be killed. And as we move from the places, where natural resources are rich and extensive and climatic conditions favourable, to places where natural wealth is meagre and climate unfavourable, the importance of labour increases tremendously.

Compulsion to labour has indeed been the source of the civilisation itself. Man instinctively tries to work as little as possible. He has been making endeavours to avoid labour from the very beginning by several means like the invention of machinery and the introduction of division of labour. This tendency is called the *law of least effort* and is the foundation of economic progress. "It has been very well said that man works prodigiously to avoid work, exactly as it has been said that he has waged war so as to avoid future wars though he does not seem to have succeeded much better in the one task than in the other. It looks like a fool's game that he is playing—undergoing all sweating toils to make his task easier. But this fool's part that Nature makes him to play is really a blessing. It is fortunate that the object he aims at is always attained, he stops only when work becomes no more than the buzz of the bee or the chirping of the bird, that it will become the attractive labour that was the ideal of that admirable socialist, Fourier".²

² Charles Gide, *First Principles of Political Economy*, (Row's Translation from the French), pp. 19-20.

§ 4. KINDS OF LABOUR

Labour may be classified into (i) productive and unproductive labour, (ii) skilled and unskilled labour, and (iii) mental and manual labour.

Productive and Unproductive Labour

Labour may be productive or unproductive. Since production means creation of utilities, all the labour which results in the creation of some utility is called productive while that which fails to do so is known as unproductive. For instance, the labour devoted to the writing of a book is productive if the book is published and brings profit to the author and publisher ; but if the book is not published, the labour involved in its writing is wasted and is, therefore, unproductive.

Which labour is productive and which unproductive, has long been the subject of discussion among economists. Early French economists, called Physiocrats, held that the labour of agriculturists alone was productive; the labour of people other than agriculturists was unproductive. Later on Adam Smith, the father of Modern Economics, extended the scope of the term productive labour and included in it all the labour which results in the production of *material objects*. According to him, the labour of a potter is productive but of a musician unproductive , the labour of a cook is productive, but that of a teacher unproductive. But it will be appreciated that the labour of all the above persons is after all an exertion of body or mind and is of the same nature. It is, therefore, rather illogical and arbitrary to call the labour of some of them as productive and that of others unproductive. Modern economists, therefore, define the term productive labour as the labour which results in the production of some utility, whether that utility is embodied in some material object or not.

Skilled and Unskilled Labour

Labour may be skilled or unskilled. Skilled labour is that which requires some special skill and training in its performance. The labour which can be performed without any sort of special training is called unskilled. The labour of a domestic servant and of a *chaprasi* is unskilled, but the labour of a motor-driver, and engine-driver, a musician and a dancer is skilled.

Skilled labour is, as a general rule, highly paid because skilled labourers have to undergo special training, their supply is usually small and the demand for them is comparatively great. Unskilled labour, on the other hand, is poorly remunerated because of the absence of special training, its abundance, and a comparatively small demand for it.

There is a certain degree of competition between skilled and unskilled labourers. If a skilled labourer is thrown out of employ-

QUANTITY OF LABOUR: MALTHUSIAN THEORY

Just as Darwin shocked traditional theology regarding the origin, so Malthus offended it in respect of the continuance of the human species.—*Nicholson*.

§ 1. THE SIZE OF POPULATION

The number of men, women and children living in a country at any particular time constitute the size of population. The size of population is determined by natural factors, *i. e.*, births and deaths, and by migration.

1. Natural Factors

Births increase the population of a country while deaths decrease it. These are the two natural factors which go to determine the size of population of country.

(a) Birth Rate

Birth rate expresses the number of children born per 1,000 person living in a country during a given time. Births increase the size of population, if other factors remain the same; as such, the higher the birth rate, the greater the rate of increase of population. It is evident that if 30 children are born in a year among a thousand people in one country, and only 15 in a thousand among another country, the population of the first is likely to increase more rapidly than that of the second. The factors determining birth rate are not fully known but the more important of them may be discussed here:

(i) *Climate*. In hot countries people become mature at an early age and marriages take place fairly early; while in cold countries people mature late and marriages take place at a fairly advanced age. Naturally the number of children born during the lifetime of a couple is more in a hot country than in a cold country.

(ii) *Religious Customs*. Where religion has a great hold on the masses, it plays an important part in determining the birth rate. In our country, for instance, religion enjoins that a girl should be married before she attains puberty, with the result that she gives birth to a large number of children before she becomes sterile. Birth rate is thus greatly increased.

(iii) *Social Causes*. Social customs also determine birth rate. Formerly people used to take pride in a large family which was an important cause of enhancing social prestige; birth rate was, therefore, very high. But late marriages have now become customary in

this country, especially among the educated classes. A large family is now generally looked down upon and is considered to be a sure sign of carelessness, if not of poverty of the couple. Such considerations have a diminishing effect on the birth rate.

(iv) *Political Conditions* The Government, in some countries, encourage procreation as a definite state policy. In Germany and Italy, for instance, the Fascist Governments used various methods to inculcate in the people a desire to produce more children. Such state inducement is likely to lead to a high birth rate, other things remaining the same.

(v) *Economic Conditions.* The desire to marry is also influenced by the standard of living of the people. Intelligent and foresighted young men and women have begun to postpone marriages until they are able to support a big family. Even when they are married, the high standard of living checks a rapid rise in the birth rate. This is not the case when the standard of living is low. Poor children cannot be sent to school; on the other hand, they easily find employment in factories or shops and begin to earn their upkeep. Economic independence induces them to marry early and settle down in life. The low standard of living thereafter leads to indiscriminate birth of children. The general tendency among the educated classes in this country, however, is to postpone marriage till the education of the boy is complete. Such consideration is, however, not given to the marriage of girls.

Condition of India. Birth rate in India is very high. It is a hot country. Celibacy is not favoured by either religion or social custom. In fact, every couple is advised to have a male child lest their souls might wander restless in the other world.¹ Economic conditions are also in favour of high birth rate. The standard of living of the people of the country is low and they procreate indiscriminately. People seem to think that it is not within their power to limit the number of children; they are written in their fate and must take birth. Who are they to interfere in God's wish? There was a time in this country when according to Hinduism, young men used to lead a life of *Brahmacharya* or complete abstinence up to the age of 25, a factor operating against high birth rate. But this practice of *Brahmacharya* has now become a thing of the past. All the above factors have made India the second most thickly populated country of the world, the first being China.

(b) Death Rate

By death rate is meant the number of persons dying per 1,000 persons living in a particular country during a given period of

¹ If a Hindu cannot beget a son, he must go to hell. His *manes* must starve. He must marry as many wives as he likes but he must get a son. His sterile wives will not object to these marriages. Not only he but his ancestors are deprived of the spiritual blessing if no sons are born. The son is called *Putra*, which literally means saviour from the hell named *Put*.—Janardan Joshi, *Oriental Astrology, Daxinism and Degeneration*, pp. 54-55.

time. Other things remaining the same, the higher the death rate, the lower the rate of increase of population. If in one country 30 persons die in a year out of a thousand, and in another only 15 die, obviously the latter will increase more rapidly in population than the former. The factors determining the death rate are the following :

(i) *The State of General Progress.* General progress reduces death rate. Educated and progressive persons take proper care in keeping their children neat and clean, and themselves lead a healthy life. They are particular about nutritious food, neat clothing, tidy shelter and other healthy requirements of proper living. As such they live long and do not fall an easy victim to various major and minor diseases. In India, however, most of the people are uneducated and backward and rarely take such considerations into account. They fail to lead a life along healthy lines, die at an early age, and suffer from diseases so long as they live.

(ii) *The Age of Marriage.* If a couple is married at an early age and children begin to be born immediately thereafter, the physique of the husband and the wife is badly damaged and their life is shortened. Their children are also weak and many of them are carried off even before they are one year of age. This is what commonly happens in our country.

(iii) *Natural Calamity.* Natural calamities like earthquakes, floods and others take people unawares and are difficult to be handled. They increase deaths quite suddenly and considerably.

(iv) *Poverty of the Masses.* It disables them from getting nutritive food, proper clothing and fair shelter. The poor have small power of resistance and whenever they catch some disease, they are seriously weakened. The death rate under such circumstances is usually high.

In India death rate is very great. The major and minor diseases very often break out and take a heavy toll of human beings. The females and infantile mortality is particularly disastrous and has been given special treatment in a subsequent chapter.

(c) Survival Rate

Increase in population due to natural factors is determined by excess of the birth rate over the death rate. This is called the 'survival rate.'

Population is said to be *static* when the births and deaths taking place in a country per year are equal so that the population remains unchanged. The population of France during the last decade remained more or less static. When births and deaths take place in such numbers that the population either increases or decreases, the population is said to be *dynamic*. When the population tends

to increase, the dynamic is said to be *positive*; and when it tends to decrease, the dynamic is said to be *negative*.

2. Migration

The movement of people from one country to another is known as migration. Migration from a country is known as *emigration* while migration into a country is known as *immigration*. Emigration and immigration are important factors in the determination of the size of population of a country. The excess of immigration over emigration, which may be called the *rate of net migration*, increases the size of population. If, on the other hand, emigration exceeds immigration, population decreases. U. S. A., Canada and Australia have gained greatly in population by the large number of immigrants, while Ireland had her population reduced by emigration. In our country, migration is not an important factor in the determination of the size of population. Immigration into India is practically non-existent, while the colour prejudice and the bad treatment accorded to Indians abroad discourage emigration.

§ 2. THE MALTHUSIAN THEORY OF POPULATION

People of all ages have given some thought to the problem of the growth of population. The modern thought on the subject began from the year 1798 when Malthus, a clergyman and a Cambridge wrangler, published his celebrated book named as *An Essay on the Principles of Population*. The law of population propounded by Malthus in this book is known as the Malthusian Theory of Population. Malthus's reasoning can be conveniently divided into three parts: the supply of labour, the demand for labour, and the conclusion.

(1) *The Supply of Labour*. Malthus argued that human beings have a natural instinct to multiply their numbers almost recklessly. He studied the history of the various countries of the world and found that it was so. The increase in population would have, indeed, been enormous were it not prevented by diseases, wars and famines, etc., all of which were called by Malthus, Natural or Positive Checks to Population.

(2) *The Demand for Labour*. According to Malthus, the amount of food grown in a country is the limit set by Nature for the growth of population. It is, in other words, the maximum demand for labour. Population cannot manage to cross this limit for any length of time.

Malthus showed that up to the time of his writing, no country had been in a position to grow all the food for its increasing population. In other words, population tends to increase faster than the food supply. He illustrated this tendency by the use of geometrical and arithmetical progression. He said that if population is assumed to increase in geometrical progression like 1 : 2 :

4 : 8 : 16 and so on, food supply will have to be assumed to increase only in arithmetical progression like 1 : 2 : 3 : 4, etc². Thus population tends to outstrip the means of subsistence.

(3) *Conclusion.* This study led Malthus to conclude that history is likely to repeat itself. Population will always tend to outstrip the food resources and Nature will do her own pruning. Diseases, wars, famines and such other calamities (Positive Checks) will continue to carry off surplus population in future as they have done in the past.

The future of the society thus painted by Malthus was monstrously gloomy and dark ; he was seriously criticized for it and began to be called a 'pessimistic economist.' He, thereupon, made further study of the problem and added preventive checks to the positive checks already mentioned by him. He opined that all the miseries to which Nature subjects humanity for carrying off the surplus population i. e., the Positive Checks, can be escaped if human beings practise moral self-restraint, i. e., preventive checks, and thus keep population well within the limit set by food resources of the country. He thus formulated two kinds of checks to prevent population : (1) *Preventive Checks*, like moral self-restraint, which human beings can apply to escape the rude methods of decreasing population which Nature adopts ; and (2) *Positive Checks*, i. e., the methods adopted by Nature for doing away with surplus population. Malthus appealed to Christians and non-Christians to exercise moral self-restraint and keep population in check to escape the misery and vice that may be the lot of future generations.

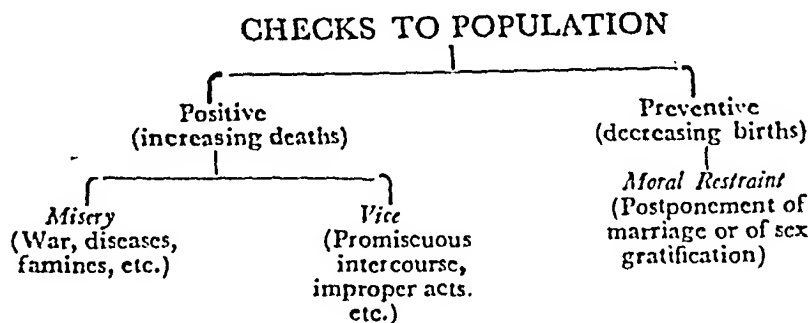
Checks to Population

The checks to population propounded by Malthus may be studied in greater detail. According to him, the available food supply is the natural limit against which population is constantly pressing. The methods of preventing population from crossing this limit, were called by him "checks to population." From the objective point of view he divided these checks into positive and preventive. Positive checks include those causes which increase the death rate³ and preventive checks refer to those causes which decrease the birth rate. From subjective point of view, these checks were classified into misery, vice and moral restraints. Vice is dif-

2 Sometimes it is stated that according to Malthus food supply increases in arithmetical progression while population increases in geometrical progression. This is a wrong statement. Malthus never said this. He simply illustrated the increase in population and food supply by geometrical and arithmetical progressions respectively. This misstatement is a very common error and should be avoided by students.

3 It is impossible that a positive check so goading and remorseless as famine should prevail without bringing in her train all the others. Pestilence is her uniform companion, and murder and war are her followers.—Senior.

erent from misery inasmuch as its immediate effect may be happiness while the effects of misery are always bad. Moral restraint does not lead to misery or vice but causes a certain kind of temporary unhappiness. These checks have been tabulated below⁴:



It is interesting to note that Malthus did not really believe in his heart of hearts, that preventive check, namely, moral restraint, would ever be practised by a large majority of people and could be seriously depended upon to limit population. His wavering attitude paved the way for the so-called Neo-Malthusianism which sanctions the use of artificial methods of birth control as an effective preventive check to population. It differs from moral self-restraint inasmuch as it makes room for sex gratification unaccompanied with children, which make possible what Malthus described "gratifying our passion only in that way which is unattended with evil." Mahatma Gandhi advocated the practice of moral self-restraint and did not favour the use of artificial means.

Criticism of the Malthusian Theory

Malthusian theory is not entirely correct. It was certainly correct at the time when Malthus propounded it; but since then the world has considerably changed, and many factors unforeseen by Malthus have come into play and have rendered his theory inapplicable to modern times. During the time when Malthus lived, population of Great Britain was on an increase; food supply was getting scanty. Great Britain could not draw food supplies from India or America due to the absence of trans-oceanic trade. Time was ripe for a theory as gloomy as Malthus's. All these conditions have now become things of the past. Population of Great Britain has increased only insignificantly. Food supply is not deficient now mainly due to the development of oceanic trade and transport. England has today become a great manufacturing nation and though she does not produce enough food for her dense population, she can exchange her manufactured products with the agricultural products of other countries and sustains a much larger population than what Malthus could imagine.

⁴ See Gide and Rist, *History of Economic Doctrines*.

Malthus, in fact, exaggerated the rate of increase of population. He did not realise the biological fact that the fecundity of human race diminishes with advance of civilisation. A general rise in the standard of living of the world population has decreased births. Even in the lower classes, the enactment of the various Educational and Factory Acts, prohibiting employment of children, has made the begetting of children unprofitable. Malthus did not foresee all these developments. He also failed to give weight to the various social tendencies which today operate against an increase in population. For instance, there is a strong feeling in modern society against indiscriminate procreation which is regarded as a great folly and the old pride in large family has now vanished.

Malthus not only exaggerated the rate of increase of population, but he also failed to foresee the rapid increase in the production of food-stuffs which modern nations can command. He did not realise that the Law of Diminishing Returns could be checked by improvements in methods of agriculture. He also did not understand that food supply produced by a nation is not an effective limit to her population; the limit is, in fact, set by the quantity of foodstuffs that a country can command, either by herself producing it or by importing it from other countries. A manufacturing country may grow very little foodstuffs but may export its manufactured goods and import food supplies instead, and may thus support a very heavy population. This is, for instance, what England is doing at present. In fact, the problem of modern society is not under-production but over-production; our problem is not how to produce more goods, but how to dispose of the goods that have already been produced.

Recent statistics definitely prove that in advanced countries like U. S. A., United Kingdom, France, etc., population has not increased so rapidly as the means of subsistence.

Malthusian Theory and India. Though the Malthusian theory is not applicable to the western countries, it is applicable to a backward country like India. In India population has been increasing more rapidly than the agricultural output. Our manufacturing industries are also undeveloped or ill-developed and disable us from getting food supplies from other countries in exchange for manufactured goods. The consequence is that population often presses against the limit set by the food supplies. People of this country are so illiterate and so blindly wedded to loose religious and social customs that they do not practise moral self-restraint. The absence of preventive checks is associated with the absence of the practice of artificial methods of birth control because of the poverty, illiteracy and conservatism of the masses. Naturally, therefore, Nature brings into action her own rough and crude methods. Diseases, floods, earthquakes, riots, etc., take place very often and carry off the surplus population every now and then.

TEST QUESTIONS

1. What are the natural factors which determine the size of population ? Discuss fully.
2. Give an account of the various factors which determine the birth rate of a country.
3. Write short notes on survival rate and rate of net migration.
4. Does migration affect the size of population ? Does it do so in India ?
5. State the Malthusian Law of Population. How far do you agree with it ?
6. "Malthusian theory is a great principle of universal validity." Comment.
7. Criticize the Malthusian theory of population and show how far does it apply to India.

EXAMINATION QUESTIONS

U. P. Inter. Arts.

1. Write notes on Positive and Preventive Checks. (1950).
2. Write a short note on positive checks. (1947).
3. Write short notes on : (a) positive checks, and (b) over-population. (1945).

U. P. Inter. Com.

4. What is Malthusian Theory of Population ? Criticise it from the viewpoint of some of the modern economists. (1948).
5. Criticize the Law of Population by Malthus, and briefly state the points you would take into consideration in studying the population problem in India. (1946).

Raj. Inter. Arts.

6. Explain the following :—
 - (a) Natural increase of population.
 - (b) Positive and preventive checks to population.
 - (c) Optimum population. (1943).

Raj. Inter. Com.

7. Explain what is meant by positive and preventive checks to population. In a country with an overgrown population, which of the two checks would you prefer in order to bring down the population ? Give reasons. (1946).

Nagpur Inter. Arts.

8. Write a brief explanatory note on Optimum Theory of Population. (1949).

Nagpur Inter. Com.

9. Explain the relationship between natural dividend and population. (1949).

Patna Inter. Arts.

10. Explain the Malthusian Theory of growth of population. (1948).

Patna Inter. Com.

11. Explain the Malthusian Theory of population. (1949).

Banaras Inter. Com.

12. Explain the Malthusian Law of Population. Is India over-populated ? (1947).

Sagar Inter. Com.

13. Explain briefly the Malthusian Theory of Population. Does it apply to India ? (1950).

Bombay Inter. Com.

14. Explain critically the meaning of (a) optimum population ; (b) over-population ; and (c) under-population. What is your opinion on the merits of the Optimum Theory as against the Malthusian Theory of population ? (1949).

15. "Population tends to outgrow the means of subsistence." State and explain this theory and say how far it is applicable to India ? (1948).

Poona Inter. Arts.

16. Discuss the Malthusian Theory of population. Is India over-populated ? (1949).

Poona Inter. Com.

17. Discuss the Malthusian Law of population. What is meant by optimum population ? (1949).

Delhi Arts.

18. Enunciate the law of population laid down by Malthus. How far have later developments invalidated his position ? Does the law throw any light on the population of Delhi ? (1935).

19. Explain what is meant by positive and preventive checks to the growth of population ? In a country with over-grown population, which of the two checks would you prefer to bring down the number ? Give reasons. (1930).

QUALITY OR EFFICIENCY OF LABOUR

The men whose heads and hands perform the labour in our industrial system are the chief factors of efficiency and success. The study of the workman in order to understand the various elements that affect his working power is an important and serious problem for every management.—*Norris A. Brisco*.

Efficiency of labourers is one of the two factors on which the supply of labour of a country depends, the other being the size of population. The term efficiency of labour signifies the capacity of the labourer to do more work or better work or both during a given period of time. Efficiency of labour is a comparative concept. If a worker can work twice as much as the other, or if his work is twice as good as that of the other, he is two times as efficient as the other worker. It is a fact of common observation that labourers working in the same occupation under similar conditions with similar kinds of tools and raw materials and for the similar period of time turn out different quantities of work or work of different qualities. Why is it so? Why should there be such diversities in the productivity or the efficiency of workers? What are the factors upon which the efficiency of labour depends? These are the questions to which we shall now address ourselves.¹

Factors Determining Efficiency of Labour

Efficiency of labour depends upon a large number of factors. It depends partly on the employer and partly on the employed, partly on the organisation and partly on individual effort, partly on the tools and machinery, etc., with which the worker is supplied and partly on his own skill and industry in making use of them.² Broadly speaking, these factors are divisible into two classes :

- (i) Factors affecting the ability and willingness of labourers to work; and
- (ii) Factors affecting the capacity of the organiser to organise labour.

The first set of factors is of greater importance than the second.

¹ Social reformers attach much importance to efficiency of individuals. Dr. Samuel Smiles says, "The highest patriotism and philanthropy consist, not so much in altering laws and modifying institutions, as in helping and stimulating men to elevate and improve themselves by their own force and independent individual action."—Smiles, *Self-Help*, p. 3.

² Penson, *The Economics of Everyday Life*, Vol. 1, p. 51.

(i) Ability and Willingness of the Workers

Efficiency of labour mainly depends upon the capacity of the labourers to exert themselves ; and upon their willingness to work. Capacity to work unaccompanied with the willingness to labour, or mere willingness to work unattended with capacity, cannot make a man efficient. Below are discussed the various factors which determine the ability and willingness of labourers to work :

(1) *Racial and Hereditary Characteristics.* The qualities of one's race and parents determine one's efficiency to a great extent. Intelligence, physical strength, capacity to sustain prolonged exertion and such other qualities pass on from one generation to the other imperceptibly. The sailors of Great Britain and Norway, the watch-makers of Switzerland, the artists of Italy, the cutlers of Sheffield and sword-makers of Toledo are noted for skill in their respective spheres even today. The caste system which is prevalent among the Hindus in our country was originally introduced with a view to preserve racial and hereditary characteristics. Though this system has now lost much of its hold, particularly in the economic field, still some of its influence continues to exist even today. A *Brahman* has an instinctive aptitude to the acquisition of knowledge, a *kshatriya* is by his very nature drawn towards the military life, while a *vaish* is naturally attracted to trade and commerce. Similarly the labourers of Oudh are better than the labourers of Bengal, while the former are superseded by the labourers of the Punjab.

(2) *Climate and Physical Conditions.* Climate has a determining influence on the efficiency of labour. Extremes of climate do not favour sustained hard work. Labourers tend to become most efficient in a temperate climate. In very cold climates, people may find it difficult even to come out of their houses, while in very hot climate the high temperature weakens the human frame. In our country, for instance, the climate of the Punjab and Western U. P., is good and the labourers of these states are, therefore, sturdy and strong. But the climate of Bengal is bad ; and it is worse still in the Tarai regions where it becomes malarious. The labourers of these regions are of ten weak and inefficient.

Climate affects efficiency not only through its influence on the capacity and willingness of labourers to work but also through its reaction on the necessity to work. In tropical climates nature is generous in her gifts and little exertion is required for the satisfaction of human wants. Conditions tend to become harder in temperate climate under which much labour has to be undergone before one's wants can be satisfied. In cold climate, extremely hard work is necessary. The consequence is that labourers of hot countries are often dull; of temperate regions active; and of colder climates, very handworking. Climate also determines the necessities and other requirements of life and in this way also determines efficiency.

So far as our country is concerned, its climate is subtropical, hence our labourers are not very efficient. Hard work for a long period is difficult in the scorching heat of the summer. Moreover, natural resources are abundant and the need for hard work is not pressing. Finally, necessaries of life are few, and can be satisfied by little labour with the result that people are used to little exertion.

(3) *General Intelligence.* Efficiency of labour also depends on the general intelligence of the labourer. Intelligence is inherited as well as acquired. Inherited intelligence depends upon the race and parents. Thus we see that an average American is clearer in his thought, quicker in his action and more exact in his judgment than an average Indian, while the latter is superior in these respects to an average Negro of Africa. The world as a whole is, however, rising in the scale of civilization and mental attainments, and general intelligence is tending to become the possession of all. Intelligence is also acquired and depends upon the education in schools and the influence of the mother and home.

(4) *Education.* Education is a very important factor in the determination of efficiency, since it develops and awakens the latent capacities in man, and makes him otherwise fit as an active agent of production. Education may be general or practical. General education aims at widening the horizon of man's knowledge about general things. Such education gives the labourer a wider point of view and enlarges his conception of man and matter. It imparts to him social, economic and political enlightenment and strengthens his regard for morality. Such are the benefits of general education that in almost all the civilized countries of the world primary education has been made free and compulsory; while in France education is entirely free from top to bottom. Unfortunately India has not yet introduced free and compulsory primary education. General education is acquired, not only in schools, but also by the reading of books, magazines and newspapers and keen observation. Such facilities are not accessible to Indian labourers.

Technical education aims at befitting a labourer for a particular trade or occupation. It may be theoretical, or practical, or both, its exact character being determined by the nature of the trade, the taste of the labourer, and the position for which he is preparing. Since it aims at developing certain qualities required in a particular industry, technical education makes a man specialist. An important cause of the poverty and distress is that so many have not learned a trade. In our own country technical training is conspicuous by its absence. Technical institutes and vocational schools are very few, while factory and mill-owners do not take apprentices as a general rule.

(5) *Standard of Living.* The efficiency of a labourer is also determined by the standard of living of his parents who bring him up

from his birth. For a man's physical fitness is largely the result of this standard. A labourer who is brought up in an atmosphere of all-round poverty, insufficient diet and insufficient clothing cannot be capable of great physical strain. The standard of living of the labourer himself has a similar influence on his efficiency. Healthy and nutritive food, adequate clothing and tidy and airy shelter associated with healthy recreation pave the way for efficiency. The adequate supply of all these factors to the masses of our country is the greatest national problem, upon the solution of which depends the welfare of the country.

(6) *Moral Qualities.* Honesty, sincerity, industry, and such other moral qualities determine the efficiency of a labourer. All these qualities are summed up in the word "character". Character-building is a great national duty and is the outcome of early educational, religious and social atmosphere in which a man is brought up. If the influence and the atmosphere are wholesome, the sense of self-reliance, self-control, self-discipline, diligence, purposefulness and such other qualities get a strong root and make a man thoroughly efficient ; but if the influences are unwholesome, a man loses all these qualities and practically ruins himself.

(7) *Freedom, Hope and Change.* Freedom, hope and change increase the efficiency of labourers. A slave, who lacks freedom, also lacks in efficiency. Again, workers who have no hopeful prospects, even if they show good results, hardly have any incentive to be efficient. Finally, where the work is very monotonous and the worker is tied down to the same task days in and days out, he ceases to take any interest in the work ; but if a system of pleasant change in the type of work that he does is introduced, he gains efficiency through the process of automatic recreation and recuperation of lost energy.

(8) *Adequacy, Nearness and Directness of Reward.* If a labourer gets sufficient reward, he is likely to work sincerely and become efficient. If the reward is insufficient and the labourer is dissatisfied with it, it will make him psychologically inefficient. Besides, it will keep his standard of living low and will not furnish him with the conditions which contribute to efficiency. The reward should not only be sufficient, but should also be nearer and direct. Labourers are, as a general rule, short-sighted, and do not take more than one year in their calculations so that if a reward is promised to them, it must be made available within one year. Otherwise it will hardly have any effect on them. Finally, the reward must be given to them in some direct form. If it is given in an indirect or hidden form, like the improvement of working conditions, or the sale of better quality of goods at cheap prices, they may not realize the advantages of the measure and its object may be defeated.

(9) *Working Conditions.* Efficiency is also affected by general working conditions. It has been found by experiments that im-

proved lighting, ventilation, and sanitation of factories contribute to the muscular and mental strength of the labourers and as a consequence increase their output. In our country, much attention is not paid to the conditions of work. In *karkhanas* and small factories labourers have to work in unhygienic, congested and badly ventilated rooms and *kothris*, where their physical and mental vitality deteriorates through a process of slow emaciation.

(10) *The Number and Distribution of Working Hours.* It is sometimes supposed that if the number of hours for which labourers work is increased, their output will correspondingly increase. But experiments in various countries of the world have shown the shortsightedness and mistake of such belief. In fact, reduction of hours up to a certain point actually increases, rather than decreases, the efficiency of labourers. If labourers work for a smaller number of hours, they get ample time for the recovery of their lost energy ; so that when they go to work the next day, they are full of vigour and strength mentally as well as physically. They are thus able to produce more and in fewer hours than before.

Not only the number, but the distribution of working hours is also important for the efficiency of the labourers. If the rest periods are wisely introduced and good use is made of that period, labourers will feel gay, happy and refreshed.

(11) *Social and Political Conditions.* Efficiency of labour is increased if social and political institutions, customs and laws are good, reasonable and prudent. Ill-conceived and bad social and political conditions always lead to the deterioration of the efficiency of labour. In our country, for instance, it is the caste which determines the occupation of a person at the time of his birth. Such a determination pays no attention to the aptitude of the person concerned which is indeed the most important factor to be taken into account. Similarly a long subjection to foreign rule has developed an inferiority complex in the masses of the country, which makes them feel that Englishmen are always more efficient than themselves. However, as a result of the recent political awakening in the country, this tendency is fast vanishing. Labour Legislation and Factory Laws have begun to insist on the provision of good ventilation and cleanliness in factories, sufficient wages, and short hours of work. Such steps tend to increase sufficiency of labourers.

(ii) Capacity of the Organiser

Efficiency of labourers depends not only upon the ability and willingness of labourers but also upon the way in which the labour force is organised. If each labourer is given the task for which he is best fitted, if he is supplied with good appliances, and if he is properly trained for his job, his efficiency is bound to be great. These are the matters which are taken care of by the organiser. He is also to co-ordinate, in a proper fashion, the work of a particular

group of labourers with that of all the other groups. 'The work done by the group is not merely the sum total of what the men could do as individuals. It is infinitely greater, and how much greater is a matter of organisation.'

TEST QUESTIONS

1. What do you mean by the efficiency of labour ? Does it depend upon the organiser ? If so, explain how.
2. What are the factors which determine the efficiency of labour ? Discuss thoroughly.

EXAMINATION QUESTIONS

U. P. Inter. Arts.

1. "Indian factory worker is less efficient than an American factory worker." Do you agree with this statement ? If so, give reasons. (1950).
2. Examine the causes influencing efficiency of labour. (1949).
3. Explain the factors upon which efficiency of labour depends and show how far they operate in the case of labour employed in Indian factories. (1946)

U. P. Inter. Com.

4. On what does the efficiency of labour depend ? How can you improve the efficiency of Indian labour ? (1948).

Raj. Inter. Arts.

5. What do you mean by efficiency of labour ? Explain the factors affecting it. (1949).
6. In what manner does the standard of living effect the efficiency of labour ? Illustrate your answer from Indian examples. (1942).

Raj. Inter. Com.

7. What are the factors that determine the efficiency of labour ? (1948)

Nagpur Inter. Arts.

8. The efficiency of labour depends on the health and strength, the education, ambition and trustworthiness of the labourers. Do you agree ? What more factors can you name which determine the efficiency of labour. (1947)

Nagpur Inter. Com.

9. What methods would you adopt to improve the efficiency of your labourers in case you are appointed as the Manager of a Mill or Factory ? (1948)
10. "The efficiency of labour depends on the health and strength the education, ambition and trustworthiness of the labourer". Do you agree ? What more factors can you name which determine the efficiency of labour. (1947)

11. Explain the economic effects of Indian Caste System. Are you for or against retaining it ? Give reason for the view you hold. (1946).

Patna Inter. Arts.

12. Describe the factors on which efficiency of labour depends ? (1949S)

Banaras Inter. Com.

13. What factors determine the efficiency of labour ? Illustrate your answer from Indian conditions. (1948)

Banaras Inter. Arts.

14. Explain the factors on which the efficiency of labour depends. (1949)

15. Explain the conditions that determine the efficiency of labour in a country. How far, in your opinion do climatic conditions and social customs in India retard or promote the efficiency of labour. (1947)

Sagar Inter Arts.

16. What are the conditions upon which depends the efficiency of labour ? (1949)

Travancore Inter.

17. On what factors does the efficiency of labour depend ? To what extent are they present in India ? (1948)

Other Examining Bodies

18. Briefly explain the conditions on which the efficiency of labour depends. (Punjab I. A., 1934).

19. Describe the factors that increase the efficiency of factory labour. (Delhi, I. A., 1930).

(For other questions, see questions after chapter 36.)

CHAPTER 36

THE POPULATION OF INDIA

Natural elements such as drainage, altitude, configuration, rainfall, temperature, fertility of soil, etc., are no doubt of basic importance in determining the density and distribution of population. But as civilization advances the human element plays an increasingly important part by transforming the environment—*Seligman*.

We shall now study the numerical, physical and mental characteristics of the population of our country. These aspects of our labour problem are of fundamental importance to us.

§ 1. SIZE AND DENSITY OF POPULATION

Size of Population

India is one of the most thickly populated countries in the world. According to the National Income Committee, the population of India in 1948 was approximately 34 crores.¹

The population of the world as a whole is about 200 crores. Hence every sixth man in the world is an Indian. From the point of view of population, India comes only next to China in the world.

The population of India has been constantly increasing. In the table given below, the increase of population in the Undivided India has been shown :

Year	Population (Crores)	Percentage Increase
1872	21	...
1881	25	23
1891	29	16
1901	29.5	2.5
1911	31.5	7
1921	32	1
1931	55	10
1941	39	11

¹ Before Partition, India's population according to the 1941 census was 39 crores. Now 7 crores people live in Pakistan. Hence the population of India was roughly put at 32 crores. But National Income Committee has put this figure at 34 crores. More accurate figures will be known when the results of the 1951 census are published.

As will be seen from the adjoining table, the population of India has been increasing in recent times at the rate of 1% p.a. Hence the population in 1951 may be expected to be 35 crores, assuming that the rate of increase of 1% per annum is maintained.

Density of Population

Density of population denotes the number of persons living per square mile in a country. Obviously, the density of population in a country depends upon two factors: (1) the number of its people; and (2) its area. The population of our country is indeed very large, but its area is equally great; consequently the density of population is not considerable. It comes to about 200 persons per square mile. The population density of other progressive countries of the world is in some cases greater than India and in others less than this country. For instance, the area of U. S. A. is about 2½ times larger than India but her total population is even less than half, with the result that the density of population in that country is only 43. But other leading countries have greater density than India. The density of population in Japan is 400, in the United Kingdom 500 and in Belgium 700.

Regional Variations in Density

Two hundred persons per square mile is the average density of population of this country. As a matter of fact, the density is higher than this figure in some states while it is less in others. Delhi is the most thickly populated tract, its density exceeding 1,000 persons per square mile. The density is the least in Andamans, being only 34 persons per square mile. The following table shows the density of various States:

<i>States</i>					<i>Density</i>
Delhi	...	...	...	...	1,600
W. Bengal	...	...	...	...	800
Bihar	...	...	...	...	500
U. P.	...	...	...	...	500
Madras	...	...	...	...	400
East Punjab	...	...	...	...	300
Bombay	...	...	...	...	250
Orissa	...	...	...	...	230
Madhya Pradesh	...	...	...	...	150
Himachal Pradesh	...	...	...	...	83
Cutch	...	...	...	...	69
Andamans	...	...	...	...	34

Causes of Regional Variations

Why such variations in the density of population from state to state exist, is an interesting subject of study. Other things remaining the same, the part of the country where the chances of earning a decent living are the greatest will be most thickly populated. The possibility of supporting only a small number of people deteriorates the density of population. India is mostly an agricultural country; consequently, those areas where agriculture is most prosperous and where the chances of earning a decent living are greatest, generally speaking, are the areas of thickest population. Density of population in India is, therefore, mainly conditioned by the factors affecting agriculture. Such factors are the following:

(1) *Surface Features.* The most important factor determining the density of population is the surface features playing, as it does, a dominant role in determining the success or otherwise of agriculture. On uneven and hilly tracts, agriculture is a costly and risky venture. Level plains, on the other hand, are most suited to agriculture. Throughout the country, therefore, hilly tracts are sparsely populated and level plains are thickly populated. Indeed the Gangetic Plain is one of most thickly populated parts of the world.

(2) *Rainfall.* The success of agriculture also depends upon the amount of rainfall. Generally speaking, 40 inches of properly distributed rainfall is best suited to Indian agriculture. Where the rainfall approximates this ideal, population tends to be dense; where rainfall is either less or more than this or badly distributed, density has a tendency to deteriorate. Students should be careful not to commit the mistake of writing that greater the rainfall, greater the population. Rainfall promotes dense population only to a certain point beyond which it has exactly the opposite result. If scarcity of rainfall is damaging to agriculture, superabundance of rain is equally harmful. Lower Burma, for instance, receives plenty of rainfall, but is sparsely populated.

(3) *Irrigation.* Where rainfall is scanty, irrigation, which happens to be a corrective to this deficiency, becomes an important factor in determining the density of population. Irrigation contributes to the success of agriculture and thus favours a thick population. The area known as the canal colony in Punjab was once a dreary and dry desert; but after the construction of canals in that area, it soon became a smiling land of millions of agriculturists. Similarly the Sukkar Barrage in Sind has resulted in the rapidly increasing numbers which now inhabit that area. It must, of course, be noted that agriculture affects only a small part of the country and on the whole has little influence in determining the density of the whole country.

(4) *The Type of Soils.* The nature of soil is another important factor in the success of agriculture. Where soil is fertile and can be easily cultivated, population is dense. If the soil is, on the other

hand, rocky and infertile, population is sparse. It must, of course, be stated that soil becomes an important factor in this respect only if the proper amount of rainfall is available. Taken by itself, the effect of this factor on the density of the population of the country as a whole is little.

(5) *Climate*. Suitable climate is another factor to ensure the success of agriculture. Other factors of agriculture may be quite favourable, but if climate is not suitable, agriculture cannot be properly carried on. Importance of this factor can be very well realised from the fact that the areas of unfavourable climate almost always coincide with low density.

(6) *Security*. Security of person and property leads to dense population. The areas liable to dangers of war or natural calamity or political oppression or exploitation, have sparse population.

(7) *Factors Affecting Migration*. To a certain extent, the whole host of factors which encourage or check the migration of population increase or decrease, as the case may be, the density of population; and may even dominate over other factors discussed above.

(8) *Stage of Economic Development*. The stage of economic progress attained by a country or a part thereof has also some effect on the density of population. In the hunting stage, for instance, people led wanderers' life and the density of population was a meaningless term in those times. The pastoral stage led to some sort of fixed habitation; but as the domesticated animals required large grazing grounds, population was in the very nature of things, sparse. In the agricultural stage people began to settle down in certain localities; food resources increased so that a dense population could not be supported. The density of population, naturally, increased. All the important agricultural tracts of India have thick population. In the industrial stage the density increases further as can be seen from the population of our industrial centres like Bombay, Calcutta, Kanpur and others.

(9) *Industrial Development*. The above factors have reference to agricultural population. Thick population may also be a result of the elements leading to the industrial development of a region. As a general rule, where industries are localised, population is dense. All our industrial centres, like Bombay, Kanpur, Calcutta, etc., are very thickly populated.

§ 2. HEALTH AND VITAL STATISTICS

It is clear from the above account that India has a huge population to support. But what about the efficiency of her people? To understand this, we should have some knowledge about their health and education. These are discussed in § 2 and § 3 respectively.

Health

Healthy population is the basis of a sound national economy. The will to progress and ability to achieve it flow from healthy mind and body. Physical efficiency of human beings lies at the root of the whole economic progress. An average Indian is physically weak. This is the result of the great poverty in which he is steeped and of his illiteracy, particularly his lack of public health conscience. Many of the people of this country do not get even two meals a day; and the number of those who can get even this is small. The masses of people live in muddy hovels or insanitary rooms, in foul dirt and squalor, productive of all sorts of diseases. They are also badly and insufficiently clothed. Whatever they are capable of doing in the interest of better physique, they fail to do because of their ignorance and illiteracy. Under the circumstances, they lead an unhealthy life and are often visited by various sorts of major and minor diseases. The chief major diseases from which they suffer are : (1) cholera, which is a common occurrence in eastern India ; (2) malaria, which asserts itself in the areas of heavy rains and bad drainage; and (3) tuberculosis, which is spreading like wild fire in our big industrial towns. Then there are minor diseases like plague, kala-azar, hookworm, which are as destructive as the major diseases. These maladies carry off thousands of persons each year and weaken many more. All-India Medical Research Conference remarked that "the average number of deaths resulting from preventible diseases is about five to six millions, the average number of days lost to labour by each person in India is not less than 2 to 3 weeks in each year, that the percentage loss of efficiency of the average person in India is not less than 20 per cent and that the percentage of infants born in India who reach wage-earning age is about 50 while it is quite possible to raise this percentage to 80 or 90...The greatest cause of poverty and financial stringency in India is loss of efficiency resulting from preventible diseases."

Vital Statistics

Statistics or figures relating to births and deaths are known as vital statistics. We had occasion to discuss in a preceding chapter that the birth rate in this country is staggering; but the death rate is also disastrous. Consequently the survival rate is small. The table below shows the birth, death and survival rates of India in different years.

Year	Birth Rate per thousand	Death Rate per thousand	Survival Rate per thousand
1931	35	25	10
1938	34	42	10
1939	34	22	12
1940	33	22	11

It is clear from this table that about 33 children are born every year per 1,000 persons ; and about 22 persons per 1,000 persons die during the year. Hence the net increase of population comes to about 10 per thousand. Hence the net rate of increase of population is 10 per thousand per year, or one per cent.

This rate of increase is greater than in any other older country. For instance, this rate is only 7% in England, Germany and Japan. The population of India is already so great that this rate of increase is rather serious.¹

Average Life Time. Human life is very short in our country. This factor is a stumbling-block in our economic progress. Death generally means the loss of experience and skill of the deceased at a time when he would possibly be of great help in the economic advancement of the country. The average duration of life in India is only 27 years ; whereas it is 43 in Japan and 67 in New Zealand. Female and infantile mortality are particularly high and need special attention.

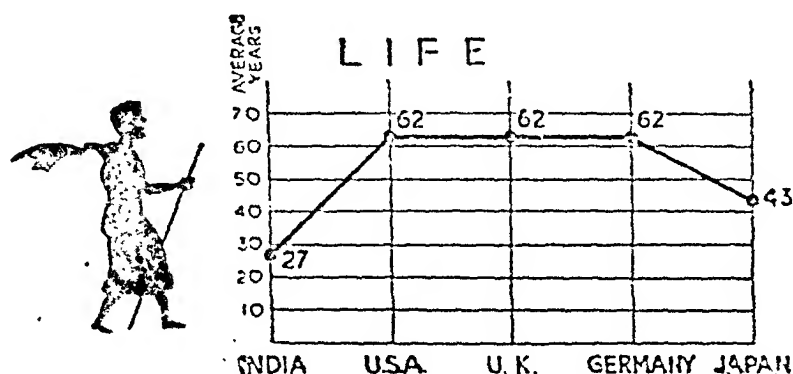


Fig. 40. Average duration of life in India and other countries.

Female Mortality in India

Death rate among the women in India is very great. It is very high particularly at the time of child-birth. The chief causes of high female mortality are the following :

¹ In new countries, where area is large but population scanty, population is increasing at a fast rate. In Canada this rate is 18 per cent, in Australia 14 per cent and in U. S. A. 13 per cent. But their population being scanty, this development is favourable for them.

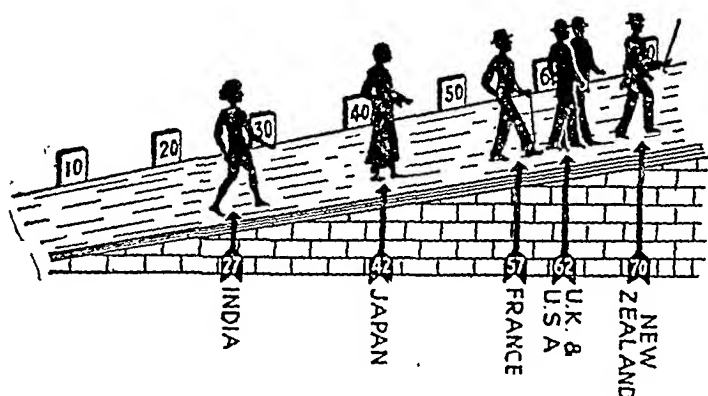


Fig. 41. Showing average duration of life in certain countries.†

(1) Certain social customs have a disastrous effect on the health of our women. *Purdah* system is one of them. It confines our women within the house where they hardly get either fresh air to breathe and opportunity to take some exercise. It is gratifying to note that such injurious social customs are losing their importance.

(2) The early marriage system is a much more important factor. Girls who are married early become mothers before they are physically mature, and catch serious diseases. The consequence is that thousands of child-wives march from the nuptial bed to the funeral pyre within a short period of their married life. Nervous debility, tuberculosis and uterine diseases cause havoc among them.

(3) Quack mid-wives who nurse the Indian women at the time of child-birth use faulty methods which at times prove fatal.

(4) Female life is regarded as cheap in this country and generally women neglect their health.

(5) Women working in factories have to attend to their duty immediately after the child-birth and just before it, which has disastrous effect on their health.

(6) The masses of the country are poor and are ill-fed and ill-clad, so that once the constitution of women begins to weaken, it often leads to their untimely death.

Child or Infantile Mortality

Infantile mortality, like female mortality, reaches serious proportions in our country. India has the highest infantile mortality in the world. Twenty per cent of the children born, die before they are one year of age. Infantile mortality is particularly great

† Taken from Minoo Masani, *Our India*.

in the towns. The table below gives the infantile mortality rates of certain towns for the year 1934:

City	Death rates		
Lucknow
Bombay
Nagpur
Calcutta
Madras
Delhi

The causes of high infantile mortality in India are the following:

(1) All the factors which prove fatal to the mother or weaken her are also the causes of infantile mortality; because the weakness of mother passes on to the child. Children born of weak mothers die soon after their birth.

(2) Indian mothers are generally ignorant of the principles of mother-craft. Improper feeding and faulty bringing up of children is a fruitful cause of their early death. Diseases like diarrhoea and dysentery which are common among small children often prove fatal to the delicate lives.

(3) The poverty of the masses is another very important factor. People not getting adequate food and clothing and living in unhygienic surroundings have to bring up their children in similar circumstances. They cannot give to their babies proper food and satisfactory environment to grow and develop, and when they fall ill, proper medical attendance is not available.

(4) Sometimes mothers have to work in factories. They are generally not given sufficient leave or maternity welfare before childbirth; and they are required to join the factory immediately thereafter. They cannot afford to absent themselves from factory work due to their poverty. The hard labour which they have to undergo causes weakness which also makes their children weak.

(5) Very often mothers do not get time from family duties or factory work to attend to their children properly. Therefore, they adopt the practice of drugging their children. This causes nervous debility in children, resulting in their early death.

§ 3. EDUCATION OF INDIAN LABOUR

The Psychology of Indians

Education is an important factor in the determination of efficiency of labourers. It is partly inherent and partly acquired.

The psychology of the Indian people is instinctively non-practical and other-worldly and is prejudicial to economic prosperity. Mr. Jadunath Sarkar gives a vivid account of our mental condition in the following lines :

The Indians (if generalisation be permissible in the case of such a vast and varied population) are slack-nerved, easy-yielding, awed by the stupendous forces of Nature and the might of Fate, and though generally industrious and sober, apt to be led away by occasional outbursts of impulse or passion, habitually conservative, believing in the wisdom of their ancestors, fond of letting things alone, and inclined to sit under the banyan tree, dreaming of metaphysics :

Annihilating all that's made

To a green thought in a green shade.

They are essentially mediaeval in their thoughts and as far removed from the abstract "economic man" as can be imagined. Some of their very virtues such as the domestic habit, patience, content with little, aversion to a spirit of adventure or speculation, and softness of heart, handicap them in the economic race.²

This picture, though overdrawn, possesses some element of truth. Recently a wave of political awakening has spread throughout the country which has made our countrymen conscious of grim realities and alive to the necessity of economic advancement.

Education

The education of the masses of the country is very unsatisfactory. The primary education is meagre ; hardly one out of every three villages has a primary school. It is not compulsory anywhere except in a few hundred municipalities and rural areas. There is one middle school per 100 sq. miles, one high school per 315 sq. miles, and one arts college per 9,000 sq. miles. Under the circumstances, our labourers cannot attain that mental efficiency in the absence of which no lasting progress can be made.

§ 4. EFFICIENCY OF INDIAN LABOUR

Let us now discuss the problem of the efficiency of Indian labour. The problems which we have to face are mainly two : (1) Is Indian labour efficient, or inefficient ? (2) If the latter, what are its causes ?

Is Indian Labour Efficient ?

Whether Indian labour is efficient or not, is sometimes debated, though this controversy is superficial. It is moreover a problem of advanced discussion, and will be given only a passing reference at

² Sarkar, *Op. Cit.*, Ch. I.

this place. It has been argued by some people that Indian labour is probably the most efficient in the world. For, labour in India is so cheap that labour cost per unit comes to a very low figure—probably it is the lowest in the world. This may be so but the argument is not very plausible. Low labour cost is not the criterion by which efficiency of labour is to be judged. Efficiency of labour is to be tested by the productivity of labourers per unit of time. Labourers producing more or better goods in a given period are more efficient ; and labourers producing less or worse goods in the same period and under similar circumstances are less efficient. From this point of view, which is the only correct point of view, Indian labour is really inefficient.

Causes of Inefficiency of Indian Labour

The following are alleged to be the causes of the inefficiency of our labour :

(1) *Racial Characteristics.* Western writers have the habit of stating that Indian labourers are inefficient because they come from a stock having hardly any capacity for industrial work. This assertion betrays colossal ignorance of India's past economic achievements. Anybody who has some knowledge of the history of India can say that this statement is wrong. There was a time when India was the most advanced industrial nation of the world and her manufactures used to be the best in the world. Our workers are the descendants of the same labourers whose nimble fingers were celebrated throughout the world. In the British Period of our history, the decay of indigenous industries led to a deterioration in industrial efficiency. But once again India is marching on the road of industrial progress with set teeth and firm determination, and her labour is fast becoming efficient. In Tata-nagar, for instance, the labour force was originally drawn from wild tribes but has now become so efficient that glowing tributes have been paid by foreign observers to its efficiency.

(2) *Climate.* Climate is alleged to be the next factor accounting for the inefficiency of Indian labour. This is true to a certain extent as the hot climate of our country does have a weakening influence on the human frame. But it must not be forgotten that our labourers still have an unusual capacity for hard and sustained work; and they live in very rigorous conditions. The workers of Northern India—Nepal, and the Punjab—are very sturdy, though those of Bengal or Madras are not so strong and tough. Moreover, the progress of science and economic advancement of the country may lead to the adoption of artificial measures to make the climatic conditions more favourable for work. A spread of electricity for domestic and industrial purposes has already led to the use of fans, refrigerators, humidifiers and other such salutary devices.

(3) *General Intelligence.* The next factor which makes for the inefficiency of Indian labour is the low standard of general intelligence possessed by the average Indian labourer. The home surroundings of our countrymen are hardly educative, mainly because of the illiteracy of the parents. Our education system is also not extensive; even primary education is not yet compulsory and free everywhere. It is due to this fact that our labourers are still conservative and immobile. It is absolutely essential that Government and private resources are pressed to the service of education so that the standard of general intelligence of the labourers may rise.

(4) *Education.* Lack of education, general as well as technical, is another important reason of the inefficiency of Indian labour. Because of this deficiency, labourers also lack in cheerfulness, hopefulness and intelligence which greatly increase efficiency. At present our education is mainly literary. There is great need of technical and industrial education along both theoretical and practical lines.

(5) *Low Standard of Living.* The standard of living of the masses is very low which makes them weak physically as well as mentally. Our labourers live in dirty *chawls* or *bustis* where drink, disease and immorality are rampant. Their food and clothing are far from satisfactory. The low standard is the result of poverty and illiteracy. Poverty is, of course, a many-sided and fundamental problem and its solution will require the change of almost entire economic mechanism. The spread of education and the popularisation of public health conscience may also be relied upon to do something in this direction. Organised attempts should be made for the improvement of public health including the supply of pure water, unadulterated food, proper medical facilities and the system of insurance against sickness.

(6) *Working Conditions.* Working conditions in the factories also contribute to the inefficiency of our labourers. Improper ventilation, defective sanitation, careless colouring dirty conditions and such other factors are common and reduce the efficiency of labour physically and psychologically. Factories Act has been made for remedying such evils but more vigorous efforts have to be made in this direction. Propaganda is also very valuable, and it is really unfortunate that it has been neglected in this country so far. If capitalists are convinced that the money they spend in improving working conditions might be more than repaid in the form of increased production, they will themselves take the initiative in this direction.

(7) *Hours of Work.* Hours of work, if long, deteriorate efficiency. This has been the cause of some importance in reducing the efficiency of our labourers. Recently various factory laws have shortened the hours of work, but they are still too long for a country like India which has hot climate. It has been aptly remarked that

the slackness and listlessness of Indian labourers are a form of protective device which they unconsciously adopt to prevent constitutional breakdown, which strenuous labour for long hours would otherwise inevitably bring about.

(8) *Labour Turn-over.* Indian labourers, as a general rule are not full-fledged labourers. They are essentially cultivators. They come to work in factories only when their fields do not require their services; and as soon as sowing and harvesting set in they leave their factory work and return to their fields. This migratory character of Indian labourers checks the attainment of efficiency. Indian labourers can be made permanent, if industrial life begins to provide healthy conditions of living, suitable for family life as well as sufficient wages for its maintenance.

(9) *Self-Satisfaction.* Our labourers are temperamentally self-satisfied. They lack the discontentment which leads to economic progress. Their outlook is essentially other-worldly and they care just for a living wage. If wages are increased beyond this limit in order to induce them to work more efficiently, they actually begin to absent themselves more frequently than before, because less work can now give them the desired income. With proper propaganda and education they should be made to attach greater importance to their material wants and material well-being than what they have hitherto done.

(10) *Efficiency of Organisers.* India lacks organising capacity. As such we have to import foreign skill for the purpose. Foreigners are not very efficient organisers. The climate of this country rarely suits them. Moreover, they are used to efficient labourers in their own countries, and Indian labourers appear to them inefficient weaklings. Very often they become careless because they are paid considerable sums in advance and cannot be easily turned out. Rarely is an effort made to find out the suitability of a labourer to a particular task and the allotment thereof to him. Again, tools and machinery that are used are not always suited to labourers. The use of defective machinery, it must be realised by our capitalists, is a false economy. We can improve the standard of organisation in this country if we send our own countrymen abroad for requisite training and see that they put into practice the latest advances made in the science and art of organization and management.

TEST QUESTIONS

1. What do you mean by density of population? What is the density of population in India? Account for its provincial variations.
2. Write a short note on "The Health of the Indian People and its Economic Significance."
3. What do you mean by vital statistics? Give an idea of the vital statistics of India.

4. Account for the high female and infantile mortality in India.
5. Suggest the reasons for the inefficiency of the Indian labour.

EXAMINATION QUESTIONS

U. P., Inter. Arts:

1. Density of population figures are given for some states of India :

	Density per sq. mile.
Rajasthan	91
Uttar Pradesh	515
Bengal	780

Account for this difference. Give reasons ? (1951).

2. What is meant by density of population ? Give reasons for unequal density of population in the different parts of India. (1950, 1948)

3. "The Indian industrial worker is less efficient than an American worker." Do you agree with this view ? If so, give reasons. (1950)

4. Write a note on Vital Statistics. (1948)

5. Explain the causes of high infantile mortality (a) in India in general, (b) in industrial centres in particular. What measures can be adopted to lessen the evil ? (I. A., 1944)

6. India presents examples of very high and very low densities of population. Explain the factors that account for these wide differences. Do you agree with those who maintain that India is overpopulated ? Give reasons for your answer. (I. A., 1943)

7. What are the causes of inefficiency of Indian labour ? What remedies would you suggest ? (I. A., 1941)

8. What do you understand by 'infantile mortality' ? Explain the causes of the high infantile mortality rate in India. Suggest measures to check this evil. (I. A., 1940)

U. P., Inter. Com.

9. On what does efficiency of labour depend ? How can you improve the efficiency of Indian labour ? (1948)

10. The efficiency of Indian workers is lower than that of workers of the other industrial nations. What are the causes of this lower efficiency ? Suggest remedies to improve it. (1943)

11. On what does the efficiency of labour chiefly depend ? How does the employer contribute to the efficiency of the employed ? (1941)

Raj. Bd. Inter. Arts.

12. Discuss the factors on which density of population in several parts of India depends. (1941)

13. Explain fully the chief factors which affect the efficiency of labour in India. (1940)

Nagpur Inter. Arts.

14. Discuss the main causes of the difference in the density of population in the different parts of India. (1949)

Nagpur Inter. Com.

15. Explain the economic effects of caste system. Are you in favour of or against its continuance ? Give reasons in support of your answer. (1946)

Sagar Inter. Arts.

16. How do you account for differences in density of population in different parts of India ? (1949 Supp.)

Sagar Inter. Com.

17. Why is the Indian labour inefficient ? Suggest some methods to increase his efficiency. (1949)

18. Write a note on Density of Population. (1949)

19. Account for differences in the density of population in the different parts of India. (1948)

Banaras Inter. Arts.

20. 'Areas of heaviest rainfall coincide with the areas of densest population.' Discuss the above statement fully and account for the distribution of population in India. (1948)

Banaras Inter. Com.

21. Account for the comparative inefficiency of Indian labour. Suggest methods to improve the efficiency of Indian labour. (1946)

Poona Inter. Arts.

22. Discuss the Malthusian Theory of Population. Is India over-populated ? (1949)

Travancore Inter. Arts.

23. Population, if unchecked, tends to grow faster than food supply. Examine this with special reference to India. (1943)

24. On what factors does the efficiency of labour depend ? To what extent are they present in India. (1943)

Other Examining Bodies

25. What are the economic effects of early marriage and caste system in India ? (Punjab, I. A., 1937)

26. What has been the growth of population in India in the present century ? Explain how an increase of population in an old agricultural country influence the following :

(a) Value of agricultural products.

(b) Rent of land.

(c) Income per month. (Punjab, I. A., 1933)

27. What is meant by "efficiency in production ?" Give an idea of the conditions of the factory labourers in Delhi. Indicate possible lines of improvements with a view to increasing their efficiency. (Delhi, I. A., 1933)

Rajputana Board Int. Arts.

28. Consider the influence of the caste system on mobility of labour. Show how mobility of labour increases efficiency. (I. A., 1944)

29. Fully explain why the Indo-Gangetic plain is thickly populated. What inference, if any, can you draw from the fact that the density of Bengal is almost equal to that of England ? (I. A., 1944)

30. In what manner does the standard of living affect the efficiency of labour ? Illustrate your answer from Indian examples. (I. A., 1942)

1. Fixed and Circulating Capital

Capital may be fixed or circulating. Fixed capital is of a permanent and durable nature, and is used in production over and over again. Buildings, machinery and implements are some of the examples. Fixed capital may, then, be defined as the capital which exists in a durable shape and which is used in production repeatedly for the performance of the same function. Circulating capital is capable of rendering service to production only once. For instance, tallow and alkali which are used in the manufacture of soap, can be thus utilized only once; they cease to be tallow and alkali after their first use and cannot serve that purpose again. Circulating Capital may, then, be defined as the capital which is consumed in its first use in production and cannot be used more than once for the performance of the same function.

2. Production (or Trade) and Consumption Capital

Capital which is used in the production of certain articles is known as production capital. Raw materials, machinery and buildings are some of the examples of production capital. It is to be distinguished from the capital which satisfies human wants directly and is known as consumption capital. It includes the goods which gives a direct subsistence to the workers as food, clothes and light.

3. Sunk and Floating Capital

Capital which is specially designed and specialised for a particular purpose, so that it ceases to remain fit for any other purpose, is called sunk capital. Capital invested in making a bridge or in manufacturing a railway engine is sunk capital. But the capital which is not so specialized in its application and can be transferred from one productive use to another is known as floating capital. Cash and raw materials are the examples of floating or unspecialized capital.

4. Material and Personal Capital

When capital is embodied in a tangible material object and can, as such, be purchased and sold, it is known as material. The qualities of an individual, all those energies, faculties and habits which contribute to make a person efficient and cannot be transferred to any other person, are known as personal capital.

5. Remuneratory and Auxiliary Capital

The capital used in the payment of wages to labourers is known as remuneratory capital; while that which helps labour in production, like tools and machinery, is called auxiliary capital.

§ 5. EFFICIENCY OF CAPITAL

Efficiency of capital depends upon (1) its fitness for the productive purpose to which it is put, and (2) the methods of its application.

1. Fitness

By fitness is meant the suitability of capital to the productive purpose to which it is devoted. This suitability depends upon the characteristics of capital and the nature of its employment. When both these factors are agreeable to the purpose in view, efficiency is achieved. An illustration will make the point clear. Suppose a very big building, sufficient to accommodate gigantic machines and thousands of labourers, is converted into a big factory, it will be quite efficient for that purpose. But if the same building is used as the workshop of a small artisan, it will be too costly and spacious to be called efficient.

2. Methods of Application

The method in which capital is used also determines its efficiency. If a machine is handed over for operation to an unskilled labourer, he will not be able to make its best use; under his charge the machine is bound to remain inefficient. Good materials and good tools are certainly great aids to efficient production, but they can achieve efficiency only if they are used by skilled labour working under good management.

§ 6. ACCUMULATION OF CAPITAL

We shall now consider what are the factors which govern the accumulation of capital. As J. S. Mill observes, "Since all capital is the product of saving, that is of abstinence from present consumption for the sake of a future good, the increase of capital must depend upon two things—the amount of fund from which saving can be made and the strength of its dispositions which prompt to it."* In other words, the accumulation of capital depends upon (1) the ability to save, and (2) the willingness to save. The following chart is illuminating in this respect :

ACCUMULATION OF CAPITAL DEPENDS UPON

(A) Ability to Save	(B) Will to Save	
	Subjective Conditions or Personal Motives	Objective Conditions or Conditions Prevailing within the Country
Excess of income over expenditure.	1. Prudential considerations. 2. Social and political considerations. 3. Economic considerations. 4. Temperamental considerations.	1. Security. 2. Field and facilities for investment. 3. Capable businessmen. 4. Existence of the means of storing value.

Chart 47—Explaining the accumulation of capital.

* J. S. Mill, *Principles of Political Economy*, p. 101.

Ability to Save

Saving is possible only if one's income is greater than one's expenditure. If a man spends Rs. 200 per month and his income is exactly equal to that amount, or less than that, he cannot afford to save anything. But if the income of the same man rises to say Rs. 250, he can save Rs. 50. It is the surplus of production over consumption, then, which gives rise to capital. Such surplus may accrue either from increased production or from more economical consumption.

The Case of India. The ability of our countrymen to save is negligible. This is due to the fact that the income of the majority of the people is very small. In a previous chapter we have given figures to show that the income per head is among the lowest in India. It comes to Rs. 255 a year, which is barely sufficient for maintaining a person even at the subsistence level. Under the circumstances capital accumulation cannot be expected to assume any considerable scale. It is only a few rich people of the country, whose income far exceeds their expenditure, who are the accumulators of large amounts of capital such as it exists in this country.

Willingness to Save

The excess of income over expenditure does not of itself lead to the creation of capital. There must also be a willingness on the part of person concerned to save money, that is, to put it to productive purpose. The willingness to put the surplus money to such purpose is influenced by two sets of causes : (1) subjective considerations, *i.e.*, personal factors ; and (2) objective considerations, *i.e.*, conditions prevailing within the country. We shall discuss them below.

1. Subjective Considerations or Personal Factors

The important personal factors which prompt men to save money are the following :

(1) *Prudential Considerations or Foresight.* Men sometimes save money as a provision against some contingency when their income might stop or diminish due to some reason or the other. Factory workers, for instance, try to save some money which might support them during the period of unemployment or illness. In old age, too, one's earning capacity seriously deteriorates or comes to an end ; and money is saved to be of help in such a time. People also try to save money with a view to leave something to their dependents after their death. These prudential considerations which lead men to save money, either for the "rainy day" or for their dependents, constitute what is generally called *foresight*.

(2) *Social and Political Considerations.* In the modern age of capitalism, it is wealth or capital which brings prestige, respect and power in social sphere and political life. The desire to command esteem and wield influence is an important cause of the accumulation

of capital. The greater the esteem in which capital is held and the higher the social and political power which it is capable of giving, the greater will be the strength of this motive.

(3) *Economic Considerations.* There are certain important economic considerations which also lead to an accumulation of capital. The first of these is the desire to earn interest. The higher the rate of interest, the greater is the inducement to save money. The second motive is the ambition to succeed in business. A businessman commanding large capital finds the gates of success open for him ; while a businessman with small capital is seriously handicapped in several ways. Capital is as such also accumulated with a view to excel one's business competitors.

(4) *Temperamental Considerations.* There are some people with whom saving is a habit and is as assertive as any other habit. Just as they cannot live without eating and drinking, similarly they cannot probably live without saving.

The Case of India. In India, subjective forces do not generally operate very powerfully ; they move only the richer sections of the population. The rich and the middle-class people have the desire to leave something for their dependents but the poor fail to take distant future into account, though the sense of family affection is quite strong with all classes of people. The desire to save for a "rainy day" shows similar characteristics. The possession of capital certainly gives social and political prestige in this country, but people are generally illiterate and poor and this ambition does not become effective in the case of majority of them. High rates of interest are probably found attractive by them and some of them are proverbially habituated to save money. But so far as the majority is concerned, it rarely gets the occasion for exercising its willingness to save due to extreme poverty.

2. Objective Considerations or Conditions within the Country.

A man possessing the ability to save will like to save only if the conditions prevailing within the country are favourable. The important conditions are the following:

(1) *Security.* A man will like to save money only if he is certain that his savings can be kept safely. If he fears that his savings might be taken away by robbers, or be snatched away by unjust tax collectors of the Government, or be destroyed in warfare, or be devastated by such natural calamities as earthquakes and volcanic eruptions, his incentive to save will be damped. In early times, life and property of the people were not safe ; and the people were consequently thriftless. But the spread of civilisation and the establishment of organised society guaranteed them adequate protection, and capital accumulation on a large scale is an accomplished fact now. In our country the break-up of the Moughal Empire saw frequent wars, daring robberies and excessive taxation which checked capital accumulation.

their capital as sheep is fleeced of its wool. Such insecurity made people spend-thrift and reckless, and capital accumulation was meagre.

(2) *Fields and Facilities for Investment.* People can put their money to productive purposes only when fields and facilities for investment are available. In their absence the money which is saved will be hoarded and will not become capital. In the modern age, however, such fields and facilities have greatly increased in number and efficiency. Agriculture, industries, transport, hydro-electric works and other spheres of production have become highly capitalized and are in chronic need of capital. Facilities for investment have also multiplied on all sides. Everywhere we find banks, shares and bonds of companies, insurance policies, Government securities, all of which have greatly increased in popularity and have stimulated the accumulation of capital.

In India, however, fields of investment are not so large as in America or the United Kingdom, but the scope is definitely increasing with great rapidity. Large-scale production in factories and farms, large iron and steel and hydro-electric works, big insurance and banking companies, are coming into being; and capital is finding diverse and satisfactory channels of application. So far as investment facilities go, they are not very satisfactory at present and lack both in numerical strength as well as in efficiency. Joint stock banks are not very many, while savings bank and co-operative societies are also few.

(3) *Capable Businessmen.* People are induced to invest money only in the concerns conducted and directed by trustworthy and capable businessmen. The business magnates well known for business efficiency and honesty always inspire confidence in the public and large funds are easily entrusted to them without any hesitation. Such persons are very few in our country. Tatas and Dalmias can be counted on the tips of one's fingers. This is an important reason why capital is not very large in this country. Whenever any capable businessman starts business, there is no dearth of capital for him.

(4) *Existence of Money as a Store of Value.* People will save money only if they find that there exists a means of storing value for long periods without any loss. In India we have the rupee as our legal tender which is a good store of value.

The Case of India. The willingness of the people of this country to accumulate capital was not very powerful in times gone by because of the political and economic instability, insecurity and such other unfavourable factors. Since those times, however, conditions have been changing slowly and gradually. Since the Great War I in particular, there has been a tremendous increase in the indigenous capital. But still the following remarks, made by Mr. Dudeney, are not very wide off the mark:

"Indeed, it is equally the strength and the weakness of the Indian native mercantile community that its members possess great wealth, yet fail to use it fully.

Even the most wealthy among them are invariably subject to the inherited and ineradicable oriental habit, bred of cruel necessity of hiding their money in such highly portable, convenient and easily hidden investments as jewellery and precious stones. If ever an Indian Pierpoint or Morgan arises he will not buy old masters, but will put his heart and his money into the collection of priceless diamonds, pearls and rubies. That is what every native capitalist does in his degree, and therefore, it should not be assumed that his credit is to be gauged only by the paper securities he can lodge with the banks."⁴

§ 7. MACHINERY

Machinery represents the important form of capital. Machinery has contributed to a great extent to the modern civilization inasmuch as it has enabled man to subdue Nature. Machinery has created a revolution in the sphere of production and has increased productive capacity tremendously. The modern machinery is a very complex and gigantic instrument of production and has been gradually evolved out of the very simple tools first designed by the primitive man. Agriculture, manufacture, transport and other businesses have become highly mechanised. Such an important role does the machinery play in the modern economic and industrial organisation and so fundamental and far-reaching are its repercussions on social life that the present age is often described as the *Age of Machinery*.

Advantages of Machinery

The introduction and use of machinery on a large scale have brought about fundamental changes in our economic system. The chief advantages of machinery are discussed below :

(1) Machinery increases the power of man over Nature. There are several tasks which man cannot possibly perform or can perform only inefficiently ; but they can be done very easily and efficiently by big machinery like steam-hammer, cranes and floating docks. Machinery have enabled man to compel Nature to release her forces for the benefit of mankind:

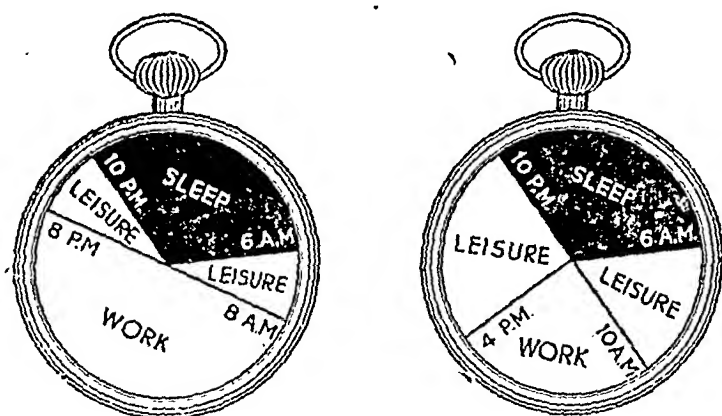
(2) In the absence of machinery, continually repeated motions, involved in certain jobs, strain human muscles and often cause monotony or even premature death. Such arduous work is now done by machinery which have thus spared human beings from terrible results. The common examples of monotonous work are the folding of newspapers and the feeding of papers in a printing press, both of which are now done by machinery with speed and precision.

(3) Machinery can unleash super-human energy and thus increase the quantity of output tremendously. They also improve the quality of output in certain respects. They have made output uniform and have introduced an era of mass production. Mere hands can rarely make two things similar ; but machinery can forge them exactly alike. The standardization of output has brought in several advantages, the most important of which is the possibility of the inter-changeability of the parts of machinery.

⁴Frank M. Dudeney, *The Industrial Revolution*, p. 25.

(4) Machinery make large-scale production possible and ensure the availability of consequential internal and external economies. Output is thus increased at reduced cost per unit.

(5) Machinery save time and give rise to greater leisure. This leisure may be used for reading, recreation, spiritual development and other useful activities. The following diagram shows this fact clearly.



Before the introduction of machinery After the introduction of machinery

Fig. 43—Showing how machinery saves time.

(6) Machinery have enabled unskilled labourers to do the tasks which could formerly be done only by skilled labourers. Disgusting and disagreeable work, like that of a sweeper, is also taken over by machinery. Very delicate and fine work, which human eyes and hands can do only with great difficulty and with rare success, is performed by machinery with great ease. There are machines which can even measure the diameter of a hair.

(7) Machinery increase the intelligence, resourcefulness and responsibility of workers. They give to labourers command over their eyes and hands. Labourers also increase their knowledge when they learn the working and mechanism of machinery.

(8) Machinery have increased the mobility of labour from one occupation to another. As the mechanisation spreads, the ability of labourers to move also increases proportionately.

Disadvantages of Machinery

Though machinery have about so many advantages, their effects have not been altogether beneficial. They have been responsible for the economic, physical and moral degradation of workers. Such disastrous results have often led to rebellions among workers during

the course of which they have typified machinery as their great enemy and smashed them into pieces. But it is now growingly realised that in the long run these disadvantages are more than amply repaid. The chief shortcomings and disadvantages of machinery are mentioned below :

(1) The greatest argument given against the introduction of machinery is that they displace labour. Machine is a 'labour-saving device' in the sense that it can do the work of a large number of men who are thrown out of employment when machinery is introduced.

This of course happens in the earlier stages of the introduction of machinery. But later on the displaced labourers get employment on better wages and under improved conditions than before. This happens because the demand for labour increases later due to the following factors : (a) Machinery reduces the price of goods. Reduction in price increases the demand for them. The need of producing more goods gives employment to labourers. (b) To produce more goods, more machines are required, to manufacture which more labourers are employed. (c) More raw materials are also needed for turning out increased quantity of goods and labourers are employed to produce more raw materials. The demand for labour thus increases after some time and the displaced labour finds employment on good terms. (This reasoning is, however, true only if the machinery is manufactured in the same country in which it is used. If, on the other hand, machinery is made in one country while it is used in another, the labour of the latter may be thrown out of employment and may not be re-employed.)

(2) Machinery make skilled workers semi-skilled machine operatives. For instance, before the introduction of machinery in our country, Indian weavers were famous for their art. We hear of the fine Dacca muslin, 20 yards by one yard, which could be made to pass through a finger-ring and required six months for manufacture. Such artists are not to be seen now. They have all disappeared because there is no market for their products now. Their articles are better in quality than the factory articles but the latter are very cheap while the prices of the former are almost prohibitive. High class hand-made articles do not sell now and skilled artisans have been compelled to work in factories as semi-skilled labourers.

(3) Machine-made articles are not as beautiful and artistic as some hand-make goods. The most artistic articles are still produced by hand. For instance, high-class and beautiful silk *saris* are usually woven on hand-looms. Machinery, by their very nature, cannot devote that individual care and attention to minute details without which high-class artistic work cannot be produced.

(4) Machinery have been the cause of much physical and moral deterioration. Introduction of machinery has led to congested and over-crowded towns where labourers have to live in dirty quarters and

to spend their lives in reeking festers of the slums. In such habitations, drinking habit, excessive sex indulgence, gambling and other social evils find free play and unfettered nourishment. As consequences of mechanisation have followed the 'sweating' of labour, over-exertion of the adult and undue strain on women and children. The moral independence, sense of security and self-reliance of labourers are now things of the past. The poor machine-tender can be 'fired' at a moment's notice and he has to starve during the period of unemployment.

(5) Machinery have led to large-scale production which, in turn, often leads to over-production, *i.e.*, production in excess of demand. Over-production leads to a 'glut' in the market, shrinking prices and economic depression.

This allegation is, however, incorrect. Careful examination shows that over-production is not the result of large-scale production of machinery, but of miscalculation on the part of the producers. If the demand could be exactly anticipated and measured and if the activities of individual producers could be thoroughly regulated, there could not arise any opportunity for over-production; but since this is not an accomplished fact, over-production is a frequent occurrence.

On weighing the advantages and disadvantages of machinery, theoretically as well as practically and considering the history of economic development of the various countries of the world, we feel convinced that the salvation of our country in the present age lies in rapid mechanisation.

TEST QUESTIONS

1. Explain and define capital. Is there any difference between saving and capital? Is money capital?
2. What are the characteristics of capital? 'Land is capital.' Comment.
3. Discuss the importance and functions of capital in production.
4. Write short notes on : (1) Fixed and circulating capital ; (2) Production and consumption capital ; (3) Sunk and floating capital ; (4) Material and personal capital ; (5) Remuneratory and auxiliary capital.
5. What are the factors on which efficiency of capital depends?
6. What are the factors on which the accumulation of capital depends? Discuss with special reference to India.
7. Discuss the advantages and disadvantages of machinery.

EXAMINATION QUESTIONS

U. P. Inter. Arts

1. Define the term Capital. What are the conditions for the growth of capital in a country? Illustrate your answer with special reference to present conditions in India. (1951)
2. Define carefully the term Capital. What part does it play in production in modern times? (1948)
3. Write a note on Fixed and Circulating Capital. (1948)

4. Define the term Capital ; and distinguish between fixed and circulating capital. Discuss the importance of capital in Indian agriculture. (1942)

5. Discuss the advantages and disadvantages of the use of machinery. (1941)

U. P., Inter. Com.

6. Discuss the conditions which affect the accumulation and growth of capital. How far do such conditions exist in India ? (1951)

7. Define the term capital. Distinguish between fixed and circulating capital. Are the following capital : (a) seed corn, (b) hoarded rupees, (c) goodwill of a business ? (1949)

8. Discuss the advantages and disadvantages of the use of machinery in modern production. (1943)

9. Define capital and distinguish between fixed and circulating capital. Do you consider the following capital : (i) goodwill of a business, (ii) the skill of a doctor, (iii) the miser's wealth, (iv) a house, and (v) the intellect of a teacher ? (1941)

U. P. Inter. Agriculture

10. What is capital ? How do you calculate annual depreciation charges in the following cases : (a) farm building, (b) machinery, (c) livestock ? (1948)

Rajputana, Inter. Arts

11. What is capital ? Discuss the factors responsible for the accumulation of capital. (1948)

12. Capital is divided into fixed and circulating, specialised and free capital. Give examples of each sort of capital (1943)

13. Discuss the advantages and disadvantages of the application of machinery in production. (1941)

Rajputana, Inter. Com.

14. What do you understand by the term capital ? Indicate the conditions that determine its supply and examine to what extent these are fulfilled in our country. (1949)

15. Write a note on fixed and circulating capital. (1946)

Patna, Inter. Arts

16. Define Goods, Wealth and Capital. What are the features which distinguish them from each other ? (1948 S)

17. Explain how capital helps production ? What are the incentives for the supply of capital ? (1948 S)

18. Do you think that the use of machinery causes unemployment ? What are the advantages of the use of machinery ? (1947 S)

19. Examine the effects of an increased use of machinery in any particular industry (a) on the workers and (b) on the consumers of the commodity. (1945A)

20. What are the various effects of introduction and use of machinery. (1945A)

Patna, Int. Com.

21. What are the factors which influence the accumulation of capital? (1945S)

22. Examine the effects of increased use of machinery in any industry (a) on the workers and (b) on the consumers of that commodity (1949A)

23. Write a note on Capital. (1949A)

24. What do you mean by Supply of Capital ? On what factors does the supply of capital depend ? (1945A)

Banaras, Inter. Com.

25. "Machine is a mixed blessing to industry." Discuss fully. (1949)
26. Write a note on Fixed and Circulating Capital. (1949, 1946)
27. Define capital. On what conditions does its growth depend? (1948)

Nagpur Inter. Arts.

28. Define fixed and circulating capital. Give a few examples of fixed and circulating capital in a cotton factory and a printing press. (1949)
29. Describe the nature of capital. Explain the part played by capital in the production of wealth. (1948)
30. Capital is accumulated labour. Explain this statement. Name two commodities which are at times capital and at times only wealth. (1947)

Nagpur. Inter. Com.

31. Capital is accumulated labour. Explain this statement. Name two commodities which are at times capital and at times only wealth. (1947)
32. How does capital come into existence? Exemplify from India. (1946)

Sagar, Inter. Arts.

33. What are the factors that help the growth of capital in a country? How can you increase the total supply of capital in India? (1950)
34. Write a note on Fixed and Circulating Capital. (1949)
35. Write a note on 'Functions of Capital.' (1948)

Sagar, Inter. Com.

36. Give your views on merits and demerits of machinery with special reference to Indian conditions. (1950)
37. Write a note on Fixed and Circulating Capital. (1949S)
38. "Machinery is a mixed blessing to industry." Discuss fully. (1948)
39. Write a short note on Wealth and Capital. (1948)

Travancore, Inter.

40. What factors promote the growth of capital in a country? How far are they present in India? (1943)

Panjab, Inter.

41. Distinguish between wealth and capital and bring out clearly the nature and functions of capital. (1950)
42. How does capital grow in a country? Illustrate your answer with reference to India. (1949)
43. Do you consider the use of machinery in India to be (a) absolute necessity or superfluous, (b) blessing or curse. (1949)

Delhi, Higher Secondary.

44. What is the distinction between wealth and capital? Explain the nature of capital and indicate the conditions which govern the growth of capital in a country. Illustrate your answer with Indian examples. (1951)
45. Write a note on Circulating Capital. (1951)
46. "Indians are more thrifty than Englishmen, and yet it is the capital of the latter that has built railways and other great works in this country." How do you account for this? Enumerate the causes that have retarded the growth of capital in this country. (1948)

ENTERPRISE

Normally it may be presumed that an independent entrepreneur does not make less than a manager of like abilities, and perhaps he does not make much more. If the remuneration of the manager is just equal to the amount which he produces, then the remuneration of the entrepreneur is not very different from the amount he produces—*Eidgenorth*.

Business of every size and description involves a certain amount of 'risk' or what is called in Hindi *jokhim*. A businessman has to anticipate or forecast the quantity and quality of goods likely to be demanded in the market in the near future, and to produce or purchase goods in the light of this estimate. If, due to some reason or the other, his forecast goes wrong, he stands to suffer a loss. For instance, a mill-owner may produce goods of a particular kind in the hope that they will be in demand; but the demand may unexpectedly shift from the mill cloth to the hand-woven cloth. The goods produced by the said mill will not then be sold and the mill-owner will suffer a loss. Similarly the actual cost of raw materials, the rate of interest and the rate of wages may exceed the anticipated cost, with the result that the cost of production may rise unexpectedly and a loss may result. Just as a business stands to lose, similarly it stands to gain as well. It may earn huge profits if unforeseen favourable events occur. Evidently there is an element of 'uncertainty' in the business. *This factor of uncertainty or risk is called by economists 'enterprise'*. The person who undertakes the risk or bears the uncertainty is known as the *entrepreneur*.¹

Enterprise and Organisation

Some economists think that organisation and enterprise are interchangeable words; and these two functions are performed by one and the same man who may be called either an entrepreneur or an organiser. This opinion is incorrect inasmuch as these functions may or may not be combined in one man. The joint stock company is the most typical business unit of the modern age, and in it the function of organisation is undertaken by paid managers while the function of risk-taking is performed by shareholders. Apart from this objection of a practical nature, it may be added as a theoretical argument that in theory the functions of organisation and risk-taking are definitely separate and can be conceived separately. As such, it is better to consider them as two different factors of production.

§ 1. FUNCTIONS OF THE ENTREPRENEUR

In the domain of production, enterprise plays an important *role*. No production is possible unless somebody is prepared to bear the risk which production involves. This is more so today than it has been ever before. Nowadays demand has to be anticipated and goods have to be produced according to such anticipation. The anticipation or forecast depends on a large number of variable factors so that no finality can be attached to the estimates. The element of risk in modern business can, therefore, be well appreciated. As markets are growing larger and uncertain, as the processes of production are becoming increasingly complex, lengthy and round-about, as consumers are being led away more and more by vagaries of fashion, and finally as new inventions are increasing and methods of production are being revolutionized, the element of risk in business is also increasing. And the importance of enterprise and of entrepreneur in the modern economic society has become supreme.

TEST QUESTIONS

1. Explain the meaning of enterprise.
2. Should enterprise be distinguished from organisation? Why?
3. Discuss the part played by entrepreneur in production.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. What are the necessary qualities of an ideal entrepreneur? Give the names of some of the successful entrepreneurs of India and U. S. A. (1949)

2. What are the functions of an entrepreneur in modern industry? How far these functions are performed by the village artisans in India? (I. A., 1938)

U. P., Int. Com.

3. What are the functions of an entrepreneur in modern industry? (1942)

Raj., Int. Arts

4. What are the functions of an entrepreneur in modern industry? (1948)

Sagar, Inter Arts

5. Explain the functions performed by entrepreneurs in the present industrial structure of India. (1950)

6. Who is an entrepreneur? What are his functions? (1948)

Sagar, Inter. Com.

7. Explain the functions of entrepreneur in modern industry. (1950)

CHAPTER 39

ORGANISATION

Along with advance of organisation, every part, more limited in its office, performs its office better; the means of exchanging; benefits become greater; each aids all and all aid each with increasing efficiency, and the total activity we call life, individual or national, augments.—*Herbert Spencer.*

§ 1. MEANING OF ORGANISATION

We have so far studied the four factors of production, namely, land, labour, capital and enterprise. We shall now consider the different ways in which production in our days has come to be organised. We have studied, so to say, the nature of the various parts of a machine and shall now discuss the different ways and methods of putting these parts together and learn how they act as a unit when the whole machine is set up.

Production, whatever be its nature and scale, has to be properly organised. Even so simple a producer as a small vegetable-grower has to procure good seeds at a cheap rate, decide how much land will be cultivated and what will be grown thereon, arrange for manuring and watering, and look to profitable marketing of the vegetables grown. These functions become complicated and numerous in a typical factory of today. The nature and importance of these functions, collectively known as organisation, show that efficiency of production must largely depend upon proper organisation, upon proper assemblage of the various factors of production in most effective proportions. *Organisation may, then, be defined as the attempt towards bringing the various factors of production into the most effective co-operation.*

Place of Organisation in Economics

In the early days of the development of economic theory, organisation was not considered to be a factor of production. It does not mean, however, that in those times production was carried on, or could be carried on, without organisation. As a matter of fact, some sort of organisation is traceable even in very primitive forms and methods of production. But organisation was not very important in the industrial life of those days, so that it did not attract the attention of economists. With the progress of society, however, organisation began to acquire importance. Large-scale production, division of labour, international markets and such other economic complexities pushed the importance of organisation to the forefront. It is now realised more than ever before that the agents of production cannot achieve much unless they are in effective co-operation. Their strength lies in their union under one management which will assume lead in production and endeavour to utilise all the factors so as to achieve the best results and obtain highest returns. Organisation has now come to occupy an important place in the theory of Economics.

§ 2. THE FUNCTIONS OF THE ORGANISER

The task of an organiser, it may be emphasised, is not limited to the mere assembly of the various factors of production; for he has to perform many other delicate and important functions as well. They may be explained by comparing the functions of a master blacksmith with the functions of his apprentice. The apprentice simply works according to the directions given by the master blacksmith. But the work of the latter is far more difficult and responsible. Besides devoting himself to the work of production, he has to collect the necessary raw materials like iron and coal. When there is pressure of work, he has to employ outside workers on the payment of wages. He may be required to borrow money, if there is a shortage of capital. Sometimes it is he who has to find out entrepreneurs who willingly bear the risk of the enterprise. Besides combining the services of all the factors of production, he has to estimate the probable demand. After the collection of the various factors, he has to yoke them together in production and to bring them into most effective co-operation. He has to limit production according to his estimate of the probable demand for his wares when ready. Then he has to arrange for their proper marketing. He has to be alert and in touch with the prices at which his competitors are selling their goods and to increase or decrease the prices of his own goods according to the state of competition. All these activities (excluding his labour in the actual preparation of the articles) come under organisation. Unlike the apprentice, who is concerned only with a particular task which is entrusted to him, the organiser is concerned with production as a whole.

The above is a simple instance. A study of the functions of the organiser or manager of a big factory will throw more light on the importance of his role and on the many-sidedness of his contribution. In every form of production, it is he who combines the various factors of production in the most systematic and most profitable manner, from the initial productive stage down to the sale of manufactured articles. Like the general who marshals the forces under his command and upon whose efficiency depends the victory or defeat in war, the organiser determines the success or otherwise of business establishment. Specifically his more important functions are the following:

1. Bringing into co-operation the various factors of production;
2. Organisation of labour;
3. Provision of necessary tools and appliances;
4. Determination of the quantity and quality of product;
5. The marketing of goods; and
6. Miscellaneous functions.

(1) *The organiser assembles land, labour, capital and enterprise.* This task of assemblage is preceded by an investigation of the most profitable channel of investing productive resources. After completing

this investigation, he has to pick up certain entrepreneurs willing to undertake the business risk. He also persuades capitalists to contribute their capital to the business. Then he has to employ suitable labourers and to get proper raw materials. All this preliminary work which must be done before production can begin, is performed by the organiser.¹

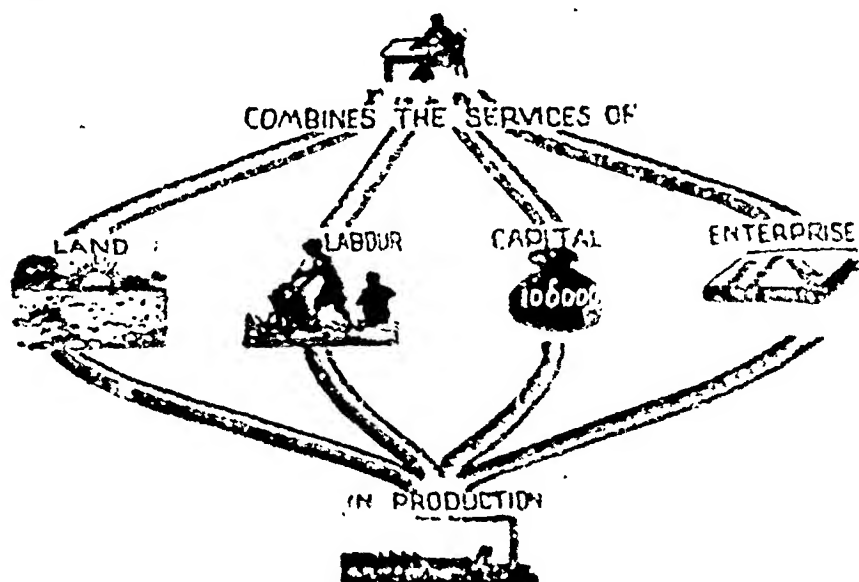


Fig. 44—Illustrating the part played by organization in the production of wealth.

(2) *The organisation of labourers* is his next important function. He has to divide labourers into several groups according to their level of intelligence, skill and aptitude, and entrust to each group the work best suited to it. He has, moreover, to be careful to see that no labourer remains idle and none is over-worked. He has to arrange production in various stages in such a manner that as soon as a labourer has finished his part of work on a particular commodity, another commodity may come before him immediately for similar operation. He has again to look to the proper supervision of labourers while they are at work; and to ascertain that the industrious and the efficient are rewarded and the indolent and the inefficient penalised.

(3) *The organiser provides labourers with proper tools, appliances and machinery.* He has to see that the implements and machinery are

¹ It must not be supposed that one man can supply only one factor of production and not more than one. In fact, a man can and does supply more than one factor. Take the case of a shareholder in a joint stock company. He is a capitalist because he has contributed capital. He is also risk-taker for he is liable to a loss and entitled to a profit. Similarly a person may contribute capital as well as organise production, thus becoming capitalist and organiser at the same time.

suitable both to labourers as well as to raw materials on which they are used. Machinery have to be kept upto date and the organiser has to be in touch with the mechanical advances made in his branch of trade. He has also to take proper care that the machinery remains fully employed, that the motive power is adequate ; and that the skill of labourers is well maintained.

(4) *Above all, the organiser determines the quantity and quality of the output.* Goods produced are meant for sale ; and business success depends upon the profitable disposal of the goods produced. It is, therefore, essential that the goods should be produced in such quantity and of such quality as may find a ready and profitable market. To perform this function efficiently the organiser has to be in touch with the market conditions and to find out what are the articles in demand and what fraction of the total demand can be captured by him. For instance, if an organiser finds that canvas shoes are well in demand, and of the existing demand he can manage to secure the demand for 1,000 pairs of shoes, then he prepares 1,000 pairs of canvas shoes. In anticipating the demand the organiser has, of course, to foresee the changes in fashion or taste and in the economic position of the purchasers, that might possibly take place in immediate future.

(5) *The problem of marketing the goods produced is also tackled by the organiser.* Speedy sale of the goods at maximum price is the ideal which he tries to achieve. For this purpose he has to know all the markets in which his goods can be sold ; the prices ruling in those markets ; the prices at which his competitors are selling, or can sell, their goods ; and such other factors. It is this sort of systematic investigation which gives success to the organiser.

(6) *Besides these, an organiser has to perform a large number of miscellaneous functions.* He has to observe the principle of substitution and to know the implications of the laws of increasing, decreasing and constant returns. All these factors have important influence on production.

§ 3. EFFICIENCY OF ORGANISATION

Efficiency of organisation is to be measured by the degree of economy in production. The best organiser makes the best use of the factors of production and thus makes the business yield the highest profit. Efficiency of organisation may, therefore, be defined as the capacity to manage production with economy.

Efficiency of organisation depends partly upon the efficiency of various factors of production and partly upon the organising capacity of the organiser himself. The former has been discussed in its proper place in this book. The latter is discussed below.

In order that an organiser may be really efficient, he must possess the following qualities :

(1) *Foresight.* An organiser should be capable of anticipating demand in its quantitative and qualitative aspects. He should also

be able to take account of the factors that might bring about a change in the nature and extent of the anticipated demand. Such factors may be climatic, or social, or political, or economic. He should also be able to visualise the probable cost of production on the basis of the cost of individual factors.

(2) *Ability to Organise Labour.* The organisation of labourers is of great importance in production and requires great skill on the part of the organiser. The key test of the efficiency of the organiser is his ability to take the best out of each labourer. His attitude should not be tyrannical but sympathetic and kind. At the same time he should not allow labourers to imagine that they can be trifled with. He should penalise the weak and lazy labourers and give reward to the diligent and efficient workers. He should create an atmosphere where labourers may naturally realise that if they improve their work and efficiency, they will get the lift which they deserve.

(3) *Technical Knowledge.* An organiser should also possess sound technical knowledge. He must know something about the nature, kind, availability and price of raw materials used in his business. Uptodate knowledge of practical business and marketing conditions is absolutely essential. He should also be in touch with the working and mechanism of the machinery. So important is this factor in production that there is a distinct tendency in America in particular and everywhere else in general to appoint engineers as organisers.

(4) *Ability to Inspire Confidence.* Modern business depends, to a fairly large extent, upon borrowed capital which cannot be got unless the management of the concern is sound and honest and inspires confidence in the hearts of capitalists. An organiser has to possess the ability to inspire such confidence.

All such qualities are found in some persons while they are absent in others. Poet, it is said, is born not made; the same remark applies to an organiser. The organisational ability is something God-given and is rare. It can be improved through experience and training. Just as good crops are the result more of natural conditions than of human skill, similarly successful business is the result more of natural ability of the organiser than of his acquired qualities.

§ 4. ORGANISATION IN INDIA

The factor of organisation is very deficient in our country. In times gone by, this was not so. But during the centuries of industrial backwardness, the old qualities making for efficient organisation have been lost. The importance of organisation, born of its scarcity, is evident from the fact that the factory industries which are well organised are called *organised industries*, while the cottage industries which are not well organised are designated as *unorganised industries*.

Organisation of Agriculture

Agriculture is the most important occupation of this country, but its internal and external organisation is deplorable. The absence

of big and consolidated holdings, lack of permanent improvements, absence of drainage system, want of manure and such other factors are examples of poor internal organisation. The chief deficiencies regarding the external organisation are the development of small-scale industries which provide subsidiary and alternative occupations to cultivators.

Organisation of Industries

As said above, our cottage industries lack proper organisation, which is an important cause of their backwardness. This is, however, not so in the case of factory industries. They are indeed very well organised. It has been observed about the jute mills that they "are a great monument to Scottish enterprise and Indian labour. While Indians have furnished the land and labour for growing, and the labour for manufacturing, Scotland has furnished the brains and the careful oversight."² Again, "In point of efficiency, organisation of the jute industry is perhaps second to none in India".³ The iron and steel industry is also very efficiently organised by foreign organisers. The cotton textile mill industry is also remarkable in point of organisation, though the foreign element is not very prominent there.

It is, then, clear that we have imported organisation from foreign countries and it is as best as it could be under the circumstances. In fact, the foreign management has serious weaknesses and shortcomings. Foreign organisers and managers have to be paid very high salaries. They also lose much of their efficiency because of the hot climate of this country. Many of them find it difficult to pull on with Indian labourers who appear to them inefficient and lazy weaklings. Finally, many of them know that they have been given large sums as advances and cannot be dismissed with impunity and, therefore, become irresponsible.

Realising these shortcomings of foreign organisation, our countrymen have begun to send students to foreign countries to acquire practical training in organisation. It is, however, mentioned by experts that managerial skill is difficult to acquire but the local talent is showing growth and improvement. Stimulated by the requirements suggested by the Indian Fiscal Commission for an industry which is granted protection, Indianisation is making progress.

§ 5. PROBLEMS OF ORGANISATION

The most important problems which an organiser has to solve are three:

1. The problem of division of labour (including the localisation of industry).
2. The problem of the scale of production.

² Buchanan, *The Development of Capitalistic Enterprise in India*.

³ Pillai, *Economic Conditions in India*.

3. The problem of the legal organisation of the business concern.

We shall devote the succeeding three chapters to these three problems of organisation.

TEST QUESTIONS

1. Explain the meaning of organisation.
2. Give an account of the importance and functions of organisation.
3. What do you mean by efficiency of organisation ? What are the factors on which it depends ?
4. Give an idea of the availability of organisation in India.

EXAMINATION QUESTIONS

U. P., Inter Arts

1. What do understand by organisation ? Suppose you were asked to organize the cotton handloom industry, how will you do it ? [1944]

U. P., Inter. Com.

2. "Organisation is the soul of industrial enterprise." Discuss this statement. [1948]

Rajputana, Inter. Arts

3. Fully explain the importance of organization and enterprise in the modern system of production. [1944]

Patna, Inter. Com.

4. Illustrate the application of the law of substitution [a] in spending income, [b] in organization of production. [1945A]

Nagpur, Inter. Com.

5. What do you understand by organization ? Give the important forms of organization. Which of them do you consider to be most advantageous ? [1946]

Sagar, Inter. Arts

6. What are the chief forms of business organization ? Describe in full any one of them. [1949]

Punjab, Int.

7. What part does the organizer play in promoting the economic interest of society in modern times ? How far do you justify his being called the captain of industry ? [1948]

DIVISION OF LABOUR AND LOCALISATION

This great increase in the quantity of work, which, in consequence of the division of labour, the same number of people are capable of performing, is owing to three different circumstances; first, to the increase of dexterity in every particular workman; secondly, to the saving of the time which is commonly lost in passing from one species of work to another; and lastly, to the invention of a great number of machines which facilitate and abridge labour, and enable one man to do the work of many.—*Adam Smith*.

§ 1. EXPLANATION AND EFFECTS OF DIVISION OF LABOUR

The first important problem with which an organiser has to deal is the division of labour. He divides and sub-divides the entire labour force into a number of groups, each performing one complete or incomplete process. One labourer thus comes to perform only one process or a part of a process out of a number of processes necessary to produce a commodity. This is the division of labour which has immensely benefited humanity inasmuch as it has increased output at reduced cost per unit.

Division of labour had not made its appearance in the very early days of human habitation. Each man or family of those days satisfied all of his or its wants through individual efforts. If somebody wanted a hut, he had to prepare it himself. If he wanted fur to cover his person, he killed an animal and prepared the fur. Similar considerations applied to each commodity wanted by human beings. But as society made progress, human wants increased; man began to make efforts to devise ways and means of increasing production to satisfy his fast-multiplying wants. In this attempt, he hit upon the division of labour. It was realised that production could be increased and more wants satisfied with the same amount of labour if each man was made to produce that commodity for the production of which he was most fitted; and to exchange his surplus commodities with the surplus commodities of other persons which he required. For instance, if a man was expert as a carpenter, he was to make chairs and tables all the time; and to exchange his surplus chairs and tables for food, cloth, and other articles of his requirements produced by other persons. Society was thus split up in a number of occupations; and division of labour was thus introduced. The advantages of this invention were so great that it was not only extended in its scope but its form was also made more complex and far-reaching, as we shall presently study. Division of labour has become a very fundamental characteristic of the modern age.

Two conditions must be present to make division of labour possible. Firstly, labourers must work in some sort of *co-operation*. Unless there is a group of labourers, they cannot obviously be divided. A single worker is incapable of division. Secondly, *exchange* of articles should

be possible. If division of labour is introduced, a man will produce one or a few commodities only; and in order to obtain other articles for his consumption, he will have to exchange his surplus output for the required articles produced by others. Co-operation of labourers precedes and the system of exchange follows the division of labour.

Forms of Division of Labour

The following are the stages or forms of division of labour :

(1) *Division into Occupations and Professions.* In this form of division of labour, workers are divided into various groups according to the occupations or professions which they are best suited to pursue. For instance, some persons may become cultivators, some weavers, some house-builders, some fishermen, some rope-makers, some doctors, some teachers, and so forth. This form of division of labour according to occupations is known as *Occupational Division of Labour*. Under it a labourer specialises in a particular occupation to the exclusion of other occupations.

Occupational division of labour was the first to appear on the scene. It appeared at an early stage of economic development. The assignment of separate duties to men and women, or of special functions to the king, the warrior, the priest, the medicine-man (thus giving rise to certain social classes) are examples of this form of division of labour in the primitive society. A very good illustration of occupational division of labour is the caste system prevalent among the Hindus, according to which the society is split up into four broad divisions, namely, *Brahmins*, *Kshatriyas*, *Vaishyas* and *Shudras*, each entrusted with definite functions.

(2) *Division into Complete Processes.* The next step in the evolution of the division of labour was the breaking up of each occupation into a number of complete processes involved in the preparation of an article, and the sub-division of labourers into the corresponding number of groups. This is known as *Division of Labour into Complete Processes*. Each group of labourers and each member thereof devotes himself, under this form of division of labour, only to one complete process. The product of one group of labourers is only a semi-manufactured article which is passed on to the other group for the next operation, and so on till it takes the final shape. In an American leather factory, for example, shoe-making is divided into 80 different processes; and labourers of such a factory are divided into 80 groups, each entrusted with a particular process only.

The division of labour into complete processes arises late in the history of human progress and is the second stage in the evolution of this phenomenon. This is the result of considerable increase in human wants to satisfy which the extent of division of labour has to be pushed further.

(3) *Division into Incomplete Processes.* With the introduction of machinery and factory system, and with multiplication of division of labour is pushed still further. Each process is

divided into various incomplete processes. Labourers are accordingly divided into different groups, each of which is made to devote itself to one incomplete process only. The work of each is merely a contribution to some joint result (semi-manufactured or finished product) from which it cannot be separated and apart from which it has no value. Obviously the worker now devotes himself to a still smaller part of the finished article than under the second stage of division of labour.

(4) *Territorial Division of Labour or Localisation of Industry.* The division of labour into sub-processes is associated with the localisation of particular industries and callings in certain regions. Industries tend to localise in a particular place or region mainly due to some favourable geographical, geological, climatic, economic or political conditions found there. Due to the localisation of the industry, labourers of that place also acquire special skill in the processes or sub-processes of that industry. The availability of such skilled labour is an important cause of localisation. The localisation of industry is a form of division of labour and is called territorial division of labour.

Simple and Complex Division of Labour

Division of labour is sometimes classified into (1) simple division of labour, and (2) complex division of labour. "Division of labour is described as simple when two or more men, working in the same way, co-operate to perform a single task, too expensive, difficult or burdensome to be carried out effectively by one man alone, such as mowing or ploughing of field, lifting heavy goods or hoisting sail of a ship. The division is described as complex when each man or a group of men undertakes a specialised function which is contributory only to the final result ; in other words, when several persons or groups co-operate to produce some result by each undertaking some contributory part, as for example the complex division of the cotton industry."

The use of the term *simple division of labour* in the above sense, is not free from objection. It is, strictly speaking, not a form of division of labour at all. When some labourers jointly do a piece of work, each working in the same way, they are not divided. They work in co-operation ; but this co-operation of labourers cannot be called division of labour.

If we want to retain the use of the terms *simple division of labour* and *complex division of labour*, we may use the former in the sense of occupational division of labour, while the latter may be made to refer to the other three forms of the division of labour.

Advantages of Division of Labour

Division of labour results in an increase in the productive capacity of labourers. This increase in productive power is brought about due to the following factors.

(1) *Gain in Adaptation.* The great advantages of division of labour is that it makes possible the division of labourers into various

groups according to their level of intelligence, physical strength and natural bent of mind ; and the allocation to each of them of the task they are best fitted for. Consequently the waste which sometimes follows due to the employment of skilled men to a job which could very well be performed by semi-skilled or even unskilled labourers, or the employment of a less skilled man for a highly skilled work, are avoided. The capacity of each man is applied to the best advantage.

(2) *Gain in Skill.* Another advantage of division of labour is that it requires the labourer to move his muscles, brain and eyes in one particular manner all the time he works ; consequently his limbs become automatic, quick and precise. The skill of a man thus increases through constant practice and specialisation. In the absence of division of labour, a labourer would be a Jack of all trades and probably master of none.

(3) *Increased Use of Machinery.* The division of labour brings about a minute sub-division of productive processes. The sub-processes become so simple that many of them can be done by a machine. Division of labour thus leads to an extensive use of machinery. Machinery increase output, lower cost per unit, diminish the strain on labourers and bring about other advantages which have already been discussed.

(4) *Increase in Number of Inventions.* Inventions of machinery, which are labour-saving devices, owe their origin to the division of labour. This is due to two reasons. Firstly, each work is divided in such minute and simple processes that the scope for inventions becomes large. Secondly, when the labourer works on one machine all the time, he gets the occasion for thinking out the improvements that can be made in that machinery.

(5) *Economy of Implements and Capital.* Under division of labour each labourer is engaged in one operation only and requires a few specialised tools which are constantly used all the time. Implements and machinery thus find full employment. Again, since he possesses only few implements, he takes proper care of them and is not likely to lose them.

(6) *Improvement in the Quality of the Product.* Since the finished product receives touches at the hands of master craftsmen, all specialists in their particular work, its quality is bound to be excellent.

(7) *Reduction in the Period of Apprenticeship.* Division of labour brings about a sub-division of production into simple sub-processes and each labourer is required to engage himself only in one sub-process rather than in the entire production. Therefore, he has to learn merely a part of the work and the period of his apprenticeship becomes short. He saves time and money as a consequence.

(8) *Saving of Time.* Being engaged only in one operation under division of labour, a labourer is not required to move from one place

or task to another place or task every now and then or to put down one tool and take up another. The time which is lost in changing work, place and tool is thus saved.

(9) *Saving of Skill.* Since the labourer is given the task for which he is best fitted, his capacity is used to the best advantage and his skill is not wasted. He is also relieved of much monotonous and cheap work which can be performed by women and children and in some cases even by the crippled and the blind.

(10) *Increase in Mobility.* When the processes of production are minutely divided and sub-divided, they become very simple and similar to each other. It becomes easier for the labourer then to move from one occupation to another. Mobility of labour is thus increased.

(11) *Expansion and Diversification of Occupations.* The invention and use of new machinery open fresh avenues of employment. Employment as a whole increases; and even women and children and partly disabled persons get some work.

(12) *Other Advantages to Labourers.* Besides these advantages, labourers gain in other forms as well. Division of labour is possible only when a large number of workers work together. Labourers thus come into contact with each other and begin to feel a sense of unity and common interest. They form trade unions and fight for a reduction in the hours of work and an increase in wages, and try to improve their conditions in other ways.

(13) *Effects on Production as a Whole.* The ultimate effect of division of labour on production as a whole is that output improves both in quantity and quality, and is obtained at a reduced cost per unit.

Disadvantages of Division of Labour

The imposing advantages of division of labour should not lead to the ignorance of its disadvantages. Its disadvantages can be grouped as (a) direct and (b) indirect.

(A) Direct Disadvantages

(1) *Loss of Efficiency and Responsibility.* Specialisation narrows down one's mental outlook. A labourer is required to do and know about only a part of work; he does not usually know more than that. The range of his usefulness is also reduced. He has to repeat the same simple process days in days out and thus becomes an automaton. It is, indeed, a sad confession for a man to make that during his whole life he has done nothing more than fashioning the head of a pin or sharpening its point! Moreover, since the raw material passes through several hands before it is finally finished, no labourer can be made responsible for the excellence of the article as a whole. Labourers lose the sense of responsibility since their responsibility cannot be fixed nor can their irresponsibility be detected.

(2) *Loss of Interest.* When a man manufactures one whole article, he takes pleasure and interest in preparing it. The beauty of the article pleases its maker, brings credit to him and gives him the satisfaction that his work has brought joy and satisfaction to others. But when he is made to work in a factory, in a scheme of mass production where his contribution cannot be located, he loses interest in the job.

(3) *Monotony.* A labourer who performs the same task all the time he works, begins to feel monotonous. The feeding of a printing machine or the folding of a newspaper and doing nothing else is certainly a dull business. Monotony gives rise to industrial fatigue, mind-wandering and day-dreaming, which reduce the efficiency of the labourer and his output. To do away with this monotony labourers are sometime allotted different kinds of work.

(4) *Employment of Women and Children.* Division of labour certainly gives employment to women and children, but very often the task is too arduous and laborious for them and seriously injures their health and hinders their growth. This is a matter of great national concern, since weak mothers give birth to weak children, and weak children turn out to be weak men of tomorrow.

(5) *Loss of Mobility.* If a workman is engaged in doing only one kind of work for some time, he might become unfit for any other occupation. The mobility of labour may thus be seriously curtailed. But, it must be pointed out, if division of labour is carried to a fairly great extent, the processes and sub-processes of different industries may become so simple as to be almost alike, in which case the mobility of labour may actually increase.

(B) Indirect Disadvantages

Division of labour also brings about certain indirect disadvantages. Associated, as it is, with the working together of a large number of labourers in a factory or a mill, it gives rise to all the disadvantages of factory system, like the over-crowding of towns and the loss of personal contact between the employer and the employee. Working in group also makes a labourer dependent upon other labourers. If a man is absent and one part of the job is stopped, the entire production may come to a standstill.

Obviously the advantages of division of labour far exceed the alleged disadvantages. Steps have been taken by enlightened organisers to reduce these disadvantages to the minimum. "Short hours, leaving more time for leisure; rest pauses; welfare schemes involving the provision of rest-rooms, reading-rooms, dining-rooms and playing fields; co-partnership arrangement and profit-sharing schemes; these are among the methods now being widely adopted to restore to the workers some measure of responsibility and to counteract the effects of routine and monotony."

Limitations of the Division of Labour

Adam Smith, the Father of Economics, has treated the subject of division of labour with an ability and perfection which has not yet been equalled. He mentions the following limitations of the division of labour :

(1) *The Nature of Occupation.* The extent to which the division of labour can be carried depends upon the nature of occupation, for that determines the number of processes and sub-processes involved therein. There is, of course, a limit beyond which the sub-division of processes cannot be carried.

(2) *The Extent of Market.* Whether the division of labour can be carried to the extent rendered possible by the nature of the industry, depends upon the extent of market. If the market is big, the division of labour also tends to be carried to an advanced stage. If the market, on the other hand, is small, the division of labour must be limited.

(3) *The Machinery of Commerce.* The extent of the market is determined by the machinery of commerce, the facility of transport, the banking system, and the like. In order to be able to trade, people must be able to communicate with each other, to send goods cheaply and quickly, to receive and pay money satisfactorily, and so forth.

§ 2. THE LOCALISATION OF INDUSTRIES

There are certain regions or districts which possess special advantages conducive to the development of a particular industry or industries. Attracted by these favourable factors, industries tend to congregate in such regions and districts, till their names become associated with those industries. The tendency of industries to congregate at one particular place is known as localisation of industries or the territorial division of labour. Good instances of localisation of industries in our country are furnished by the jute industry which is localised in the neighbourhood of Calcutta; printing and dyeing industry which is localised in Farrukhabad; glass and bangles industry centred in Firozabad; the cotton textile industry associated with Bombay and Ahmedabad; sugar industry of U. P. and Bihar; and iron and steel industry in Tatanagar.

When a factory is newly started, the organiser has to determine its locality. To arrive at the right decision, he should obtain full knowledge of the places where that industry is localized or can be localized. After a careful consideration of the relative advantages of various places from the point of view of availability of raw materials, skilled labour, good markets, means of communication and transport, and so forth, he should locate the industry at the most favourable site. The correctness of this decision is very important and determines, to a fairly large extent, the success or otherwise of the venture. Usually it happens that organisers in the same industry select the same centre or district for the localisation of their factories and thus tend to gravitate to the same region.

Causes of Localisation

It is interesting to investigate into the causes which attract organisers to the same place; in other words, which lead to the localisation of industries. The more important of such causes have been mentioned below:

(1) *Availability of Power.* The most important cause of the localisation of industries is the availability of power. Coal is perhaps the most important source of power at the present time. It is not economical to carry coal over a long distance because it is cheap in proportion to its bulk and cannot, therefore, bear the cost of long transport; consequently industries tend to be drawn to coalfields. In recent times hydro-electric power has acquired prominence. Hydro-electric stations may attract certain industries in their neighbourhood; but they usually decentralize them by making the supply of cheap power over long distances, through transmission lines, possible.

(2) *Availability of Raw Materials.* Raw materials are important ingredients of manufacturing since in their absence no production is possible. As such, the regions where raw materials are available sometimes become the centres of industries. The jute industry of Calcutta and iron and steel industry of Tatanagar are partly the result of this cause. Availability of raw materials is a matter of supreme importance in those cases where the materials cannot be economically transported due to their extreme cheapness in proportion to their bulk or due to their fixity. Mining must be carried on where mines exist and lumbering industry must be localised where forests are to be found.

(3) *Climate.* Climate helps in the growth of industries inasmuch as it determines the conditions of work. Extremes of temperature are not suited to hard work. The regions with temperate climate are, therefore, important for localisation of industries. In certain cases the climate acquires special importance as in the case of cotton textile industry. This industry requires moist climate so that fine thread could be spun out of cotton. If climate is dry, the thread soon becomes dry and breaks. It is the climate of Bombay which has made it the centre of cotton manufacturing industry of India.

(4) *Availability of Skilled Labour.* The origin and persistence of localisation is sometimes the result of the availability of skilled labour. The glass bangles manufacturing industry of India is localised at Firozabad not because it is near the sources of raw materials or the markets, but simply because skilled labour is available here. The localisation of printing and dyeing industry at Farrukhabad is also to be explained by the availability of skilled labour there.

(5) *The Momentum of an Early Start.* Sometimes a place where an industry gets an early start begins to enjoy so many advantages with respect to that industry that ultimately it gets localised there. New entrants into business find it economical and profitable to set up a factory at the old place rather than at a new place.

(6) *Nearness to Markets.* Since the manufactured articles have to be transported to the markets for sale, the nearness of the market saves the cost of transport. Proximity of markets is consequently an important factor conducive to the localisation of industries. The cotton textile mills, for instance, have recently been started in our country in the interior at the places of the actual demand of cotton textiles.

(7) *Availability of Means of Transport and Communication.* The disadvantage of distant markets is reduced if cheap, quick and easy means of transport and communication are available; consequently an industry may be localised at a place remote from the markets if efficient means of transport exist. The importance of means of transport to the localisation of industries can be better appreciated if we realise that a large percentage of the total manufacturing cost is made up of transporting charges of the raw materials to the factories and of the finished products from the factories to the markets.

(8) *Accessibility of Markets.* Markets should not only exist in the geographical sense but should also be available in the economic sense. The accessibility of markets implies that the purchasers in those markets should have the demand for the goods; the competition therein should not be prohibitive; and there should not exist very high import and export or octroi duties which check the movement of goods. It is interesting to note that the import of motor cars and lorries into India is subject to high import duties but the import of motor accessories and parts is not so liable; consequently the Ford Motor Company and other companies have established several motor factories in India, which simply fit the parts imported from abroad and sell complete lorries, thus effecting a saving in import duties.

(9) *Miscellaneous Causes.* There are various miscellaneous considerations also which favour the localisation of industries. The availability of water for factory use and of cheap land are some of the instances.

Advantages of Localisation

The localisation of industries in any particular region is a matter of great advantage. The following are the important advantages thereof:

(1) *Growth of Skill.* When an industry is localised in a particular place, the labourers of that place acquire special skill in that industry. The skill once acquired becomes hereditary and is passed on from father to son. Small children daily see the work that is done in the factories and through constant observation, helped by natural aptitude, learn the intricacies of trade in no time.

(2) *Growth of a Local Market for Skill.* Localisation gives rise to a local market for a particular kind of skilled labour. An organiser of a new factory in that line can find skilled labour in that market, while the labourers skilled in that line can hope to find employment there. Not only does the labour become specialised, but specialised machinery also makes its appearance. Localisation enables the intro-

Raj., Inter. Arts

11. Write a note on internal and external economies. [1949]
12. What is meant by Division of Labour? Discuss its advantages and disadvantages. [1948]
13. Is it true to say that division of labour increases immobility of labour? Show how division of labour is limited by (a) the extent of the market and (b) the nature of the employment. Carefully explain your answer. [1944]

Raj., Inter Com.

14. Write note on 'Localisation of Industries. [1949]
15. Write note on 'Division of Labour'. [1948]
16. What do you understand by division of labour? Describe its merits and demerits. [1947]
17. What do you understand by Localisation of Industries? Examine the factors which bring about localisation of industries. [1946]

Patna, Inter. Arts

18. Describe the advantages and disadvantages of division of labour. [1946S]

Patna, Inter. Com.

19. What do you mean by Division of Labour? Indicate its advantages and disadvantages. [1949A, 1948S]
- 19 A. State the causes leading to the localisation of different industries. Illustrate some of the consequences of such localisation by reference to industries in Bihar. [1942 Annual]

Banaras, Inter. Arts

20. What factors are responsible for the localisation of an industry? Illustrate your answer with reference to the Localisation of Textile Industry in Ahmedabad and Bombay or the Iron Steel Industry in Jamshedpur. [1948]
21. Write an essay on Division of Labour. [1947]

Nagpur, Inter. Arts

22. Write a short note on territorial division of labour. [1948]

Nagpur, Inter. Com.

23. What have been the effects of use of machinery and division of labour on economic organisation? Illustrate. [1949]
24. Explain the relation between division of labour and large-scale production. Give examples. [1946]

Sagar, Inter. Arts.

25. Enumerate the advantages and disadvantages of Division of Labour [1949]
26. Write note on Territorial Division of Labour. [1949]
27. What do you understand by Localisation of Industries? What are its causes? Point out the important advantages of localisation. [1948]

Sagar, Inter. Com.

28. Enumerate the advantages and disadvantages of Division of Labour. [1949, Supp.]

(3) *Evils of Industrial Centres.* Localisation is often associated with the physical, economic, moral and social evils which grow unchecked in factories and in industrial centres.

Remedies

The above disadvantages of localisation can, however, be remedied. The risk of one-sided development of human skill and widespread economic sufferings can be protected against, if more than one industry is started at one centre. Localisation itself partly supplies this remedy in the form of the development of subsidiary and supplementary industries. Remedies for the evils of industrial centres have already been discussed.

TEST QUESTIONS

1. What do you mean by division of labour? What are the chief requirements of division of labour?
2. Describe the chief forms of division of labour.
3. Write a note on 'simple and complex division of labour.'
4. What are the advantages and disadvantages of division of labour?
5. Explain the meaning of localisation of industries. What are its causes? Give Indian illustrations.
6. Describe the advantages and disadvantages of localisation of industries.

EXAMINATION QUESTIONS

U. P., Int. Arts.

1. Discuss the causes, advantages and disadvantages of the localisation of industries [U.P., I.A., 1950, 1947].
2. Write a short note on Division of Labour [1946].
3. What is meant by the division of labour into (a) complete processes, (b) incomplete processes? Briefly state the advantages of division of labour. [1944].
4. What is meant by division of labour? Discuss its advantages and disadvantages? [1942].

U. P., Inter Com.

5. What are the causes of localisation of industries? Point out its chief merits and demerits. [1951]
6. Carefully explain division of labour. How does it arise? Point out its main advantages. [1949]
7. What is meant by division of labour? What are its advantages? Describe them. [1945]
8. Discuss briefly the advantages and disadvantages of division of labour. What are the limitations of Division of Labour? [1942]

U. P., Inter. Ag.

9. What are the advantages and disadvantages of Division of Labour? What are its limiting factors? [1951]
10. What are the limiting factors of division of labour? What are its advantages and disadvantages? [1950]

Raj., Inter. Arts

11. Write a note on internal and external economies. [1949]
12. What is meant by Division of Labour? Discuss its advantages and disadvantages. [1948]
13. Is it true to say that division of labour increases immobility of labour? Show how division of labour is limited by (a) the extent of the market and (b) the nature of the employment. Carefully explain your answer. [1944]

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Banaras, Inter. Arts

20. What factors are responsible for the localisation of an industry? Illustrate your answer with reference to the Localisation of Textile Industry in Ahmedabad and Bombay or the Iron Steel Industry in Jamshedpur. [1948]
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23. What have been the effects of use of machinery and division of labour on economic organisation? Illustrate. [1949]
24. Explain the relation between division of labour and large-scale production. Give examples. [1946]

Sagar, Inter. Arts.

25. Enumerate the advantages and disadvantages of Division of Labour [1949]
26. Write note on Territorial Division of Labour. [1949]
27. What do you understand by Localisation of Industries? What are its causes? Point out the important advantages of localisation. [1948]

Sagar, Inter. Com.

28. Enumerate the advantages and disadvantages of Division of Labour. [1949, Supp.]

29. Explain carefully the meaning and importance of territorial division of labour. Give examples from Indian conditions. [1949]

30. Explain the relation between division of labour and large-scale production. Give examples. [1948]

Andhra, Inter. Arts

31. Discuss the advantages and drawbacks of localisation of industries. [1950]

Travancore, Inter.

32. What are the factors that lead to localisation of industries? Illustrate with a few conspicuous examples from India. [1943]

Punjab, Inter.

33. "Division of labour is limited by the extent of the market." Explain the remark quoted above and give the advantages and disadvantages of the division of labour. [1950]

Delhi, Higher Secondary

34. What do you understand by Division of Labour? What are its various forms? Discuss its advantages. [1950]

CHAPTER 41

THE SCALE OF PRODUCTION

The advantages which large business has over a small one are conspicuous in manufacture. But there is a strong tendency for large establishments to drive out small ones in many other industries : in particular the retail trade is being transformed and the shopkeeper is losing ground daily—*Marshall*.

The size of business undertakings has greatly increased in recent times. Production on a large scale is a very important feature of modern industrial society. Formerly we purchased our shoes from a petty *chamar* and cloth from an ordinary weaver ; but now these articles are supplied by big factories of Flex and Bata and gigantic cotton mills of Bombay and Ahmedabad. "The typical unit of production", says Hobson, "is no longer a single family or a small group of persons working with a few cheap, simple tools or small quantities of raw materials, but a compact and closely organised mass of labour composed of hundreds of thousands of individuals, co-operating with large quantities of expensive and intricate machinery through which pass a continuous and mighty volume of raw material on its journey to the hands of the consuming public." When production is carried with large quantities of raw materials, large amount of capital, large labour force, largely efficient organisation and large risk, it is called large-scale production. When the factors of production are small in quantity, the scale of production is said to be small.

The instances of large-scale production in our country are the cotton textile mills, sugar mills, iron and steel companies, railways and other big undertakings. The examples of small-scale production are the village weavers, *khandsaries*, blacksmiths' workshops and bullock-carts. In all the countries of the world large-scale production and small-scale production exist side by side, though the former is making progress steadily at the cost of the latter. In India large-scale production is making slow but certain progress.

It is natural to enquire into the causes of increase in the scale of production. These causes are the advantages and economies which large-scale production brings about.

§ 1. ADVANTAGES OF LARGE-SCALE PRODUCTION

Large-scale production is more economical than small-scale production. In other words, the cost of production per unit is generally less when the scale of production is large than when it is small. This is the result of the various economies which are made available when the scale is large and which do not arise when the scale is small. Such economies can be divided into two classes : (1) external economies, and (2) internal economies.

1. External Economies

Economies which result due to some external factors operating from without and have no relation to the internal organisation of production are known as external economies. External economies are enjoyed by all the firms in the same industry in common. Development of means of transport and communication, facilities in advertisement, advantageous localisation of industries and such other privileges can be included under it. When the scale of production is large, the sources of external economies grow up in plenty and external economies appear as a consequence.

2. Internal Economies

Internal economies result from the efficiency of the internal organisation of a particular firm which enjoys them exclusively. They have relation to the administrative, technical and commercial spheres of business. There are three classes in which the expenses of a factory can be divided and in respect of which economies are made. These are : (1) preparatory expenses, (2) manufacturing expenses, and (3) distributory expenses.¹ They have been detailed out in the following table :

INTERNAL ECONOMIES

Heads of Expenditure	Economies
1. Preparatory Expenses	In the purchase of raw materials, fuel, machines and tools and transport services.
2. Manufacturing Expenses	(a) In the engine room. (b) In the workshop. (c) In the utilisation of byproducts. (d) In the packing department. (e) In the office.
(3) Distributory Expenses	(a) In transport. (b) In agents, travellers and advertisements, and (c) Through reduction in fluctuations in demand.

(1) *Preparatory Expenses.* Before actual manufacturing can begin, a producer has to make certain preparations. Large quantities of raw materials, fuel, machines and tools are required. All these things can be purchased at cheap wholesale rates if the scale of production is large and the demand for them is enormous. Economies can thus be effected. Again, all these things have to be transported to the factory from different places. This can also be arranged at low rates if consignments are large since railway and steamship companies quote lower rates for them.

(2) *Manufacturing Expenses.* After the acquisition of all the preliminary things required in production, the actual work of manufacturing begins. If the scale of production is large, substantial economies can be made in the various departments of the manufacturing business.

(a) *Engine Room.* We shall begin our survey with the engine room where motive power is generated. The larger the quantity of power required, the less is the cost per unit of power. If you double the amount of the power generated, you need not exactly double the engine or the space or the engineers. In such a case a more powerful engine will certainly be required and the consumption of fuel will also go up, but the increase in expenses will be much less in proportion to the amount of power generated. Consequently economies can be effected in the supply of motive power if the scale of production is large.

(b) *Workshop.* There is a great scope for economies in the actual workshop, which can be attained by increasing the scale of production. If the scale of production is large, the number of labourers employed will also be great, with the result that a thorough and minute division of labour can be introduced. Division of labour brings about a large number of economies, which have already been discussed. Not only labour, machinery can also be specialised. A big factory can afford to purchase costly machinery, each made for one small use, and can thus take advantage of the economies resulting from the specialisation of machinery. Huge steam hammers, cranes, hydraulic riveting machines which increase output enormously at very low cost, can be used only by the big companies of today. Again, if the scale is large, machinery may be used for longer hours per day and kept more fully employed as compared to a small business where their use may be shorter and occasional. A large firm also has the advantage of using most up-to-date machinery. New inventions are being made with such rapidity that a machine becomes out of date or 'obsolete' very soon. In a big business the machinery, being used day and night, are soon reduced to scrap: loss due to obsolescence is thus saved and the latest types of machinery can be purchased immediately after their introduction. Economies can be made even in repairing machines, for a large business, where repairing work has to be done regularly, can afford to employ mechanics and carpenters for this purpose and save the profits which are made by repairing workshops. Finally, a large undertaking can spend money on researches and experiments, which is not possible in the case of a small enterprise. Work of this nature leads to an improvement in the processes of production, better utilisation of raw materials, introduction of new designs and patterns and the derivation of the advantages of scientific progress in so far as it affects organisation.

(c) *By-Products.* Now we come to the problem of the utilisation of by-products. Every factory has certain by-products or waste products which it throws away and which if properly used, can be a source of profit. The utilisation of by-products requires special skill,

experiments and capital, all of which are available in the case of large-scale production and not in the case of small-scale production. Waste products, which ordinarily involve some expense of removal, become a source of profit in big factories. Thus in the great slaughter houses of U. S. A., no part of animal is wasted; waste products are employed to yield several useful by-products like tallow, fertilizers, glue and gelatine, all of which find ready market.

(d) *Packing Department.* The next important department is the packing department. If a concern is large, it can have its own packing department and can thus save the profits which formerly went to the pockets of outside packers. It can even employ packing machines and effect further economies. Similar economies can be effected in the printing of wrappers, labels and cards.

(e) *Office.* Economies can also be made in the office where the clerical work is done. If the work is large, clerks can become specialised. Clerks of exceptional intelligence may be given really responsible and skilled work, the less intelligent clerks being given such mechanical work as adding and subtracting. The work of the latter type may even be allotted to special machines designed for the purpose.

(3) *Distributory Expenses.* The expenses incurred in the marketing of the produce are known as distributory expenses. In their journey from the factory to the consumers, the goods pass through various groups of persons, each of which puts a charge to their cost price by way of its reward. If the operations of the factory are carried on, on a large scale, many economies can be made in the distributory expenses.

(a) *Transport.* Let us first take the cost of transport of the finished products from the factories to the markets. If the scale of production is large, the consignments will also be large for which railways and steamship companies quote specially low rates. If the goods to be sent to a certain place happen to be enormous in quantity, the producer can very well have his own railway trucks which can be loaded up in the factories and drawn by his own engine to the nearest railway siding and attached to the train.

(b) *Agents, Travellers, etc.* Similar economies are made in the cost of agents, travellers and advertisements, in the case of large production. "The advertising appropriations of large organisations reach almost stupendous figures, while their sales are promoted by numerous travellers and sales agencies in every part of the world. Small-scale enterprise does not provide a sufficient margin to justify such expenditure nor is there usually sufficient capital at its disposal to make possible such outlay."

general organisation to his subordinates and devotes himself exclusively to the trade problem. Marshall aptly writes: "The head of large business can reserve all his strength for broadest and most fundamental problems of his trade. He must indeed, assure himself that his managers, clerks and foremen are the right men for their work and are doing their work well, but beyond this he need not trouble himself about details. He can keep his mind fresh and clear for thinking out the most difficult and vital problems of his business; for studying the broader movements of the markets; the yet undeveloped results of current events at home and abroad; and for contriving how to improve the organisation of the internal and external relations of his business."

§ 2. DISADVANTAGES OF LARGE-SCALE PRODUCTION

Though large-scale production has a large number of advantages, it is not free from disadvantages.

(1) If demand is miscalculated and production exceeds the market demand, great loss is incurred.

(2) The relations between employers and employees do not remain very close; hence they often come into clash with each other. Organised strikes and lock-outs often stop the smooth functioning of the productive mechanism.

(3) Then there are certain lines of production which cannot be carried on satisfactorily on a large scale; for instance, *bidi*-making or embroidery is specially suited for small-scale production.

§ 3. LIMITS OF LARGE-SCALE PRODUCTION

The extent to which the economies of large-scale production can be realised depends upon the largeness of the scale of production. It may be generally said that the larger the scale of production, the more will be the economies realised and the less will be the cost per unit. But there is a stage beyond which the scale of production cannot be increased with advantage. In other words, there are certain limits beyond which the largeness of the scale of production becomes uneconomic. These limits are imposed by the nature of the business, by the nature of the market and by the nature of organisation. We shall deal with these three limitations below.

(1) *The Nature of the Business.* In some cases the nature of the business carried on is such that large scale production is altogether unsuited for it. Business of this nature can be carried on profitably only on small scale.

(a) Some trades require special personal skill from workers who cannot be replaced by automatic machines. Silk weaving, embroidery work and other delicate works are the examples of such business. They must be carried on on a small scale.

(b) Those businesses where the personal taste of the consumer is catered for, the scale of production has to be small. A good example of this is the tailor's business. A tailor has to meet the

(a) The occupations requiring personal attention and care like tailoring are mostly conducted on small scale.

(b) The products which require high artistic excellence are produced by handicraftsmen who produce them on small scale.

(c) Some products do not command a wide market, and must be produced on small scale.

(d) Some occupations by their very nature cannot be conducted on a large scale. Agriculture is an example. It is true that we often hear of big mechanized farms but they are not big as compared with mammoth factories. *Bidis* are made by hand and bidi-making has, therefore, to be a small scale enter prise.

(e) Industries in the experimental stage have to be run on small scale.

(f) Handicraftsmen, who want to remain independent, work on a small-scale production.

(ii) The following are the advantages of small-scale production. Firstly, the master can keep a close watch everywhere. His foremen or workmen cannot afford to shirk the duty. Secondly, he saves much of the book-keeping and the elaborate system of checks which are essential in the case of large establishment. Thirdly, the relations between the master and his servants are very intimate and cordial; and there is rarely any occasion for strikes or lock-outs.

The chief disadvantage of small-scale production is that it cannot take advantage of the various economies which are available in the case of large-scale production. Moreover, difficulty is faced if the commodity of a standard type has to be produced in bulk. In other words, it is unsuited for mass production.

However, the disadvantages of small-scale production have been appreciably reduced by a number of factors. Firstly, the small-scale producer shares the advantages of external economies which are constantly increasing in importance. Secondly, the advantages of research, new modes of production, etc., which were so far available to big producers only are now available to small producers as well. In all matters respecting trade knowledge, newspapers and trade and technical publications of all kinds are perpetually scouting for him and bringing him much of the knowledge he wants. Finally, small machinery have been invented for the benefit of small-scale production, which can be operated by electricity. They have greatly improved the lot of the artisan and granted him a fresh lease of life.

§ 5. SCALE OF PRODUCTION IN INDIA

Production in India has been carried on from olden days on small scale. In industrial as well as agricultural sectors, small-scale production has been the rule. With the advent of Britishers in India, production

began to take place on large scale. Even then, the typical feature is small-scale production. Of the total output, not less than 61.2% comes from small units. Or the total national income, about 84% comes from these units. It is therefore, very clear that in our country, most of the production is organized on small scale.

There are several reasons for this state of affairs. Firstly, India is still carrying on her old ways of production and Capitalism has not yet fully developed here. It is a feature of feudalism and mediaevalism that production under it is organized on small scale; and this feature still persists in India. Secondly, Indian producers generally possess small capital, and they are, therefore, unable to carry on production on a large-scale. Thirdly, Indians are poor people and their purchasing power is small; hence they cannot purchase certain goods in large quantities. Limitation of demand also sometimes acts as a check on large-scale production.

Is this situation unfavourable to the country? In fact, large scale and small scale, each has its own sphere of advantages and disadvantages. But in some spheres, production on a large scale is inevitable, e.g., in the case of key industries. In other spheres, if the volume of the output has to be substantial, production has to be organized on a large scale. Hence efforts should be made to remove artificial obstacles to large-scale production. Where small scale is suitable or is otherwise desirable, we should make attempts to remove causes of inefficiency therein.

TEST QUESTIONS

1. What do you mean by large-scale production?
2. What are the advantages and disadvantages of large-scale production?
3. 'Small-scale production has advantages as well as disadvantages.' Elucidate this statement with reference to the advantages and disadvantages of small-scale production.

EXAMINATION QUESTIONS

1. Write a short note on external and internal economies. (1947)
2. Describe the advantages of large-scale production. What large-scale industries, in your opinion, can be advantageously established in the U. P.? (1945)
U. P., Inter Arts
3. Distinguish between external and internal economies. How do they respectively increase production in factories? (1940)
U. P., Inter. Com.
4. Discuss the advantages and disadvantages of large-scale production. What are its limitations? (1950)
5. Discuss the advantages of large scale production. (1941)
U. P., Inter. Ag.
6. Explain the following :—
"One of the advantages of large-scale production is less cost per unit" (1951)
7. What are the advantages of small-scale farming? Why are small farms better suited for India? (1951)
8. Explain : "One of the advantages of large-scale production is less cost per unit". (1950)

Raj., Inter. Arts

9. What are the limitations to large-scale production? Illustrate your answer with reference to agriculture. (1943)

10. Comment upon the merits and drawbacks of large-scale production. (1942)

11. Indicate the chief economies that an entrepreneur can obtain from internal resources in an industry. To what degree he is dependent upon external economies for the conduct of his enterprise? Explain. (1942)

Raj., Inter. Com.

12. What are the advantages and limitations of large-scale production? (1948)

13. Write a short note on large business and small business. (1947)

14. How does agriculture come to be carried on all the world over generally on a small scale? (1945)

Patna, Int. Com.

15. Describe the advantages of large-scale production. (1947 S)

Banaras, Inter. Arts

16. Indicate the advantages of large-scale production. (1948)

Banaras, Inter. Com.

17. What are the advantages of large-scale manufacturing? Can small-scale production stand against it? Give reasons. (1949)

Nagpur, Inter. Arts

18. Under what conditions a producer can produce the maximum amount at the minimum cost? (1949)

19. Write note on large business and small business. (1947)

Nagpur, Inter. Com.

20. State the advantages and disadvantages of large-scale production. What regulations are necessary to remove the disadvantages of such production? (1948)

21. Write note on large business and small business. (1947)

22. Explain the relation between division of labour and large-scale production. Give examples. (1946)

Sagar, Int. Arts

23. Discuss the advantages and disadvantages of large-scale production in India. (1950)

Sagar, Inter. Com.

24. Explain the relation between division of labour and large-scale production. Give examples. (1948)

Poona, Inter. Arts

25. What are the advantages of large-scale production? Account for the persistence of small-scale production with special reference to India. (1949)

Travancore, Int.

26. Discuss the effect of machinery on labour. (1943)

Punjab, Inter.

27. Explain the economies, internal and external, of large-scale production. (1951)

Delhi, Higher Secondary

28. What are the economies due to machinery and mass production? Explain why small-scale industries like handloom production exist side by side with large-scale production. (1951)

FORMS OF BUSINESS ORGANISATION

When an individual enters into business, either actively or as an investor in a business enterprise managed by someone else, he is perhaps as much interested in the form of organisation as in any other feature of the business. This is not surprising for the form of the organisation determines largely what share of the profits the individual may obtain for himself, how much control he can have over the business and how much risk he assumes.—*Gerstenberg*.

If we look to the business establishments all around us, we will find that they have been organised in different forms. Some are owned and managed by one individual; some are partnership firms; others are joint stock companies; while still others are co-operative societies. It is important to discuss the nature and salient features of all these forms of business organisations. Keen observation will reveal that because of the increasing popularity of large-scale production, one-man enterprise is losing its importance, partnership is less frequent than before, while the joint stock company has become the most typical and the most wide-spread form of business organisation.¹

§ I. THE SOLE TRADER

When a business establishment is owned and managed by a single individual, he is known as the sole trader or the individual entrepreneur. If the business yields profits, he alone is entitled to all the earnings; if it shows a loss, he alone has to bear it. He is also the sole manager, the pivot as it were, of the entire business.

Individual entrepreneur system is the earliest and the simplest form of business organisation. Even today it is very common and wide-spread. Its importance is, however, declining due to a general increase in the scale of production all around. It still persists in such businesses as retail trade and agriculture, and in professions like that of doctors and lawyers. In the business in which personal relationship between the consumer and the producer is important, the individual entrepreneur system is very appropriate.

This system has several advantages. Its formation is easy; anybody who intends to set up a business establishment is at liberty to do so with the resources at his command. The motive to work hard in the business is also great; because hard work increases profits and these profits go directly and exclusively to the pocket of the sole trader. Moreover, this system ensures prompt action, so often necessary for the success of the business, since the sole trader does not necessarily have to consult anybody in his business matters.

¹For greater details see my *Business Methods and Machinery*, Vol. II Kitab Mahal

This system is not free from disadvantages. The greatest disadvantage is that the liability of the sole trader is unlimited; in other words, his debts run against his entire property and not merely against the amount of capital employed in his business. Secondly, the size of the business, under this system, necessarily remains small for the productive resources which a single individual can supply are definitely limited. Again, a sole trader does not command specialised and expert opinion which is possible under partnership, and more under the joint stock company, because of large resources of the latter.

§ 2. PARTNERSHIP

The need of doing work on a larger scale than is possible under the previous system draws together more than one person to carry on business in partnership. Such a business establishment is called a partnership firm. The Indian Partnership Act 1932 lays down: "Partnership is the relation between persons who have agreed to share the profits of a business carried on by all or any of them acting for all." The maximum number of members is 20 in the case of an ordinary firm and 10 in the case of a banking firm. The liability of partners is usually unlimited, as is the case with the sole proprietor, though some of the partners may have limited liability by express agreement. Partners are jointly and severally (separately) responsible for all the debts of the firm.

Partnership, as a form of business organisation, is not so important now as it was some time back. It still persists in retail trade and mercantile establishments of moderate size. Small manufacturing factories are also sometimes organized on partnership basis.

Partnership has many advantages. It can be formed very easily, though the ease of formation is not so great as under the individual entrepreneur system. Motive to labour hard to make the business a success is quite considerable. "So great is the risk arising from unlimited liability, so direct is the relation between the partners, that the stimulus to production operates powerfully." Again, since the resources of more than one person are available here, the scale of production becomes fairly large. The capital, skill and business ability at the command of a partnership firm are often greater than those available to a sole trader. The combination of partners and their resources also makes differentiation, specialisation and division of labour possible.

Partnership has certain defects as well. Though the capital at the disposal of the firm is large as compared to a sole trader, it is not large enough for starting big factories and big transport agencies which typify the modern size of business establishments. The unlimited liability is also a great handicap, for that makes the liability of each partner excessive for most purposes. Again, partnership has a very precarious existence and may dissolve at any time. Personal quarrel or lunacy or death or insolvency of a partner, may lead to the break-up of the firm.

a combination or a combine. Combines are formed to take advantage of the economies of large-scale production or to put an end to the keen competition between the competitive business units. Combinations take various shapes and are known by different names like holding companies, syndicates, cartels and trusts. These combinations lead to monopoly, that is, the sole power of controlling the market.

§ 5. CO-OPERATION

Another form of organisation which is making great progress these days is co-operation. Co-operation has been defined as a special form of economic organisation in which the people work together for definite business purposes under definite business rules. Its chief object is to eliminate the middleman who grows fat at the cost of consumers and producers. Co-operation takes three principal forms :

(1) *Producer's Co-operation.* Under this system workers join together to carry on production on their joint and several account. In this way, they can get the profit which usually goes to the pocket of the so-called capitalist.

(2) *Consumer's or Distributive Co-operation.* Under this system consumers join together to form a co-operative organisation for the purchase of their requirements at wholesale rates. The co-operative store sells goods to the members and later on the profits of the society are calculated and divided among the members in proportion to their purchasers.

(3) *Co-operative Credit.* The chief object of co-operative credit societies is to give loans to its members at cheap rates of interest. Their funds come through deposits and borrowings which are lent to the members for certain definite purposes.

§ 6. PROFIT-SHARING

The antagonism between labourers and capitalists has taken serious turn in modern times and strikes and lock-outs have become frequent occurrences. Labourers feel that capitalists do not give them sufficient wages ; they keep for themselves a large share of what is the result of their (*i. e.*, labourer's) hard labour. Some capitalists realising the sense in the workers' argument, agree to distribute a portion of the profits of the business among labourers. This is known as profit-sharing plan. Profit sharing is just an agreement, freely entered into, by which the employee receives a share, fixed in advance, of the profits of the particular business which employs him. The share of profit accruing to him is something in addition to wages and is known as 'bonus'.

TEST QUESTIONS

1. What is the nature of sole trading system ? What are its advantages and disadvantages ?

2. Write an essay on 'Partnership'.

3. What are the characteristics of a joint stock company ? Discuss its advantages and disadvantages.

4. Write notes on (1) co-operation, and (2) profit-sharing plan.

EXAMINATION QUESTIONS

U. P., Int. Arts

1. Write a short note on Co-operative Production. (1950)
2. Write a short note on partnership. (1949)
3. Write note on the principle of unlimited liability (1948)

Raj., Inter. Arts

4. Write short note on Limited Liability Company. (1948)

Patna, Int. Arts

5. Describe the organisation of a joint stock-company. How do you explain the popularity of joint stock companies? (1949 A)

6. What do you mean by Limited Liability? What advantages does this give to a joint stock company over a partnership business. (1947 Suple.)

Patna, Int. Com.

What do you understand by Limited Liability? What advantages does this give to a joint stock company or partnership business. (1947 S)

Banaras, Int. Com.

7. State briefly the merits and limitations of joint stock form of business enterprise. What part has it played in the economic development of India? (1947)

Sagar, Int. Arts

8. Describe the characteristics and special advantages of a joint stock company. (1950)

9. Write note on Joint Stock Company. (1949 Supp.)

10. Describe the characteristics of a Joint Stock Company. Give its advantages. (1948)

Travancore, Int.

11. Why does the Joint Stock Company play such a 'large' part in modern economic organisation? (1943)

Punjab, Inter.

12. Write a short essay, giving the merits and defects of the Batai System of tenancy. 1949)

13. Why is joint stock enterprise the most current form of business organization? Under what conditions may public enterprise be considered more suitable? (1949)

Delhi, Higher Secondary

14. What is partnership? Distinguish it carefully from a joint stock company. How is a joint stock company formed? (1949)

NATURE AND PROBLEMS OF PRODUCTION IN INDIA

The well-being of a people is like a tree ; agriculture is its foot, manufactures and commerce are its branches and leaves : if the root is injured the leaves fall, the branches break away and the tree dies.—*A Chinese Philosopher.*

In 1931, Dr V. K. R. V. Rao had calculated the national income of India to be Rs. 1,600 crores, which comes to Rs. 65 per year (*i.e.*, Rs. 5½ per month). The National Income Committee calculated the national income of India on the basis of 1948 statistics (this calculation was made in 1951) to be Rs. 8,710 crores, which comes to Rs. 255 per head (*i.e.*, Rs. 21½ per month). From this, the conclusion should not be drawn that our country has become four times richer than what it was in 1931. In fact, the amount of currency in circulation in our country has very much increased ; and for several years past, the monster of inflation has overtaken us. Hence the *money* income of the people has increased. But as prices of things and services have also very much gone up, the *real* income of the people has not increased. As such, there is nothing to show that the poverty of the Indian people has become less than before.

The main reason why we continue to be poor is low output. For one thing, we have failed to make full use of our productive resources. Secondly, we are not efficiently using even such productive resources as we have been able to use productively. Hence it is very important for us to make a study of the nature and problems of production in India.

The nature of production in India can be understood by studying the relative importance of the different occupations in the country's economy. In the table below, we give the occupational distribution of gainfully occupied persons in India as given by the National Income Committee in their report published in 1951. It is clear from this table that India is predominantly an agricultural country. Not less than 68% of the working population is engaged in agriculture. Industries claim only 14% of the population. Only 6% of the population is engaged in trade and 2% in transport. Hence the main occupations (or the main sources of our national income) fall in this order : agriculture, industries, trade and transport.

Occupation	Percentage of Total Population
Agriculture ...	68
Industries ...	14
Trade ...	6
Domestic Servants ...	3
Transport ...	2
Others ...	7
Total ...	100

§ I. AGRICULTURE¹

India is the only civilised country in the world whose population depends upon agriculture to such a large extent. As we have stated above, 68% of the gainfully occupied population depends upon agriculture. Approximately half of our national income is derived from agriculture.² Such an absolute dependence upon this one occupation, whose success or failure depends upon the eccentricities of Nature, is a source of great weakness to the economy of the country. When there is a failure of rain, a widespread famine, characterized with enormous unemployment and lack of purchasing power to buy food-stuffs, is the usual result. The various Famine Commissions set up from time to time to investigate into the causes and remedies of famines found that lack of industrialisation is the chief cause and rapid industrialisation the best remedy of the extensive suffering with which Indian famines are associated.

The balance of the Indian economy is thus tipped heavily in favour of agriculture. Even this occupational disequilibrium would not have been as injurious as it is today if our agriculture were not so backward. If we compare the yield per acre of the various crops in our country with the corresponding figures of other countries, we will discover that we are far behind others. Whatever criterion of judging the efficiency of agriculture we might adopt, we will find the same tale repeated. The poverty of the masses cannot be removed unless the defects of this major industry are carefully studied and remedies thought and applied for their removal.

The Causes of Backwardness

The causes of backwardness of Indian agriculture are partly natural and partly human. The natural causes are the failure of rainfall, the unfavourable climatic conditions, the spread of plant diseases, and the evils of pests, animals, rats and locusts. These natural causes have been partly controlled by various Government Departments and have lost much of their old rigour. They are, as a matter of fact, not so much accountable for the backwardness of agriculture as human factors.

Let us begin with land. The success of agriculture depends to a large extent upon the area which the cultivator tills and which is technically called his holding. In India, holdings are very small. Then, they are divided into tiny fields, scattered at inconvenient distances. Consequently the application of various mechanical devices and the provision of such simple things as wells and embankments becomes unprofitable, while much labour, time and energy are wasted in moving from plot to plot. Moreover, permanent improvements on land are usually absent. Over a greater portion, it has been aptly

1. See Chapter 30, *The Agricultural Wealth of India*, ante.

2. According to National Income Committee (1951). 48% of India's national income is derived from agriculture.

observed, the landscape owes nothing to the hand of man ; the fields lie unwatered, unfenced and unembanked, without shelter for men or beasts. Irrigation facilities, so important in a country where vagaries of monsoon are a rule rather than exception and where double cropping is absolutely essential to support an increasing population, are very unsatisfactory. The defective land tenure system is also a grave cause of concern.

The causes related to agricultural labour are also very important. Cultivators partly due to their poverty, partly due to their ignorance and lack of public health conscience, are physically bankrupt and lack efficiency. Absentee landlordism is still continuing with all the pernicious results it is capable of.

The deficiency of capital—fixed, working and reserve—contributes its own quota to the wretchedness of agriculture and misery of the cultivator. His one important capital, namely cattle, is far too numerous, but very weak and inefficient.

So far as organisation is concerned, it is the one thing lacking to a really serious extent. Marketing facilities are not sufficient and satisfactory, while rural industries which afford subsidiary and alternative occupations to agriculturists, are deficient and undeveloped. Technical improvements in various processes and departments of agriculture have still to be made. A catalogue of all the defects of our agriculture will be a long list indeed. Attention is being paid to make careful survey of all the causes and of formulating effective remedies to solve them.

Intensive and Extensive Cultivation

An important topic in connection with Indian agriculture is the scope for intensive and extensive cultivation. We have already discussed this topic in Chapter 28, § 5.

§ 2. FACTORY INDUSTRIES

Manufacturing industries provide the next important occupation to the people of the country, 14 per cent of the gainfully occupied population being absorbed in them. The manufacturing industries are divisible into two broad divisions : (1) The factory industries, *i. e.*, the large-scale industries which are organised into factories worked with power-driven machinery, and (2) the cottage industries. There has been a steady increase in the number of factory industries in our country in recent years, especially since the First Great War. Cotton textile mills, jute mills, sugar factories, cement factories, glass factories, paper manufacturing concerns have sprung up on all sides. But the factory industries, in spite of their imposing existence and recent growth, give employment to hardly 0.6 per cent of the total population. They have, however, a bright future before them and their recent development is an indication thereof. The realisation of rapid industrialisation, as the most effective remedy for solving many of the economic ills of the country, is sure to stimulate the growth of

factory industries. It will be in the fitness of things to give here a short review of the more important factory industries of our country.

Cotton Textile Industry

The cotton textile industry is perhaps the most important factory industry in India. Judged from the standpoint of the capital invested, employment given or contribution made to India's national income, the cotton textile industry occupies the first position in the list of Indian industries. A sum of approximately Rs. 100 crores is invested in this industry. We have at present 425 cotton textile mills in the country (August, 1950). They produce cotton yarn and cotton piece-goods, and their production in recent years has been approximately as follows :

	1947	1948	1949	1950
Yarn (Mn. lbs.)	1,300	1,400	1,400	1,400
Piece-goods (Mn. Yds.)	3,800	4,300	3,900	3,700

The most important places where the industry is localised are Bombay, Ahmedabad, Sholapur, Kanpur, etc. Formerly the State of Bombay was the most important State for this industry, but later proximity to market and availability of raw materials led to the establishment of cotton textile factories in the interior, e.g., Kanpur ; while the ideal of State self-sufficiency was responsible for the expansion of this industry in West Bengal.

Before the World War I, about 25% of India's demand for cloth was met by imports. But now the cotton textile industry has expanded to such an extent that our imports in 1950 amounted to only Rs. 2 crores whereas our exports of cotton yarns and manufactures were about 112 crores of rupees. In fact, these export form (1950) about 25% of our total exports. During the period of the World War II, after Japan ceased to be a supplier to neighbouring countries, India obtained an excellent opportunity of exporting cotton cloth ; and today Indian cotton piece-goods go to a large number of countries, including Australia, England and U.S.A.

The present-day problems before the industry deserve adequate attention, and immediate remedies should be applied to solve them. *Firstly*, much of the machinery and plant have become worn out and depreciated and requires replacement. *Secondly*, the prices of important machinery have gone up considerably and this prevents their imports. If machinery are imported at high prices, the interest and depreciation charges will increase, resulting in greater cost of production. Hence it is necessary that efforts are made to produce cotton textile machinery in India. *Thirdly*, many of our cotton-growing tracts have gone over to Pakistan, with the result that the supply of raw cotton to our mills has become a serious problem. *Fourthly*, high price of raw cotton and low productivity of labour tend to push up cost of production ; and this is a serious handicap. *Finally*, output of

cotton goods must increase rapidly to supply goods not only to the home markets but also to foreign markets which India has gained for the first time in her recent history.

The cotton textile industry is a very ancient industry of our country. In early times, before machinery and power were used, our craftsmen turned out the most elegant fabrics renowned throughout the length and breadth of the world. But when machinery and power began to be used by England and other western countries, they began to produce goods cheaper than India. Indian handicrafts industry, therefore, languished. Later on, efforts were made to start this industry on the factory system, which were crowned with success. The first cotton mill of the country was started in 1818 in Bengal. In 1851 was started the Bombay Spinning and Weaving Mill which marked the real beginning of the Indian cotton textile industry. Bombay possessed such favourable conditions for the growth of this industry that mills after mills were started there; and this place early became the most important cotton textile manufacturing region of the country. It was after some time that the industry began to disperse and Sholapur, Ahmedabad, Kanpur and other centres sprang up. Development of this industry has been greatly helped by the American Civil War, the Swadeshi Movement and the two World Wars.

Jute Textile Industry

The jute textile industry is the next important textile industry of the country. A sum of Rs. 25 crores approximately is invested in this industry. There are about 112 jute textile mills working in India. Their production in recent years has been as under :

Output of Jute Manufactures in	'000 tons
1947	1,000
1948	1,100
1949	900
1950	800

The industry is localised nearabout Calcutta because of several favourable factors. Firstly, the raw material is nearly available from East Pakistan. Secondly, Calcutta is a big market for capital and enterprise. Thirdly, the facilities for the export of manufactured jute goods and import of machinery are great. Finally, nearness to coal and iron and efficient transport system have been other favourable factors.

The jute textile industry has been a great exporting industry. In 1950, jute exports amounted to Rs. 117 crores, somewhat more than cotton textile exports, and formed about 25% of total exports. Moreover, quite a substantial part of these exports goes to hard currency areas, particular to U.S.A. whose dollar is very scarce.

The industry is facing several problems. *Firstly*, most of the raw jute comes from Pakistan and the supply of raw jute is not always prompt and cheap. *Secondly*, foreign countries are trying to discover substitutes of jute, which threatens the future of this industry. *Thirdly*, places like Scotland and France are trying to develop this industry themselves.

The jute industry began its career in 1854 when the first jute mill was started in Serampur. Other jute mills soon followed. The Crimean War and the World War gave this industry great stimulus and helped it to find a sound foundation. The entire capital of the jute industry was formerly European, but the majority of it is now held by Indians. The management is preponderatingly Scottish.

Iron and Steel Industry

Iron and steel industry is called basic or key industry because it provides steel out of which machinery are made. We have a flourishing iron and steel industry in India at the present time. The annual installed capacity of the industry is slightly above 16,00,000 tons. The following table shows the production of finished steel in recent years:—

Year	'000 Tons
1947	900
1948	900
1949	900
1950	1,000

The industry is localised in the States of West Bengal, Bihar, Orissa and Mysore because of nearness of iron and coal. Though we are not now so much dependent on foreign countries for the supply of iron and steel as we were at one time, yet our industry is not able to meet our total internal demand; and there is urgent need of considerable expansion. Our annual internal demand is for $2\frac{1}{2}$ million tons of steel but we produce only about one million tons per year. Our annual imports of iron and steel amount to about Rs. 16 crores and our exports thereof to about Rs. 8 crores (1950 figures). There is considerable scope for the expansion of this industry.

The industry is at present facing several important problems, because of which it is not expanding. *Firstly*, machinery in many concerns is almost toally exhausted and there is need of new machinery. *Secondly*, there is dearth of capital and also fear of nationalization. *Thirdly*, labour cost has considerably increased. In Jamshedpur, the most important centre of the industry, the remuneration of labour has increased three times but their output per head has fallen to $\frac{2}{3}$ rd; in other words, labour cost has increased $4\frac{1}{2}$ times recently. Finally, though the industry is mechanised, it still employs a large number of hands.

In olden times we had an important iron and steel industry, but it was altogether non-mechanised. It could not face the competition

of the western steel industry which had the advantages of machinery and power and declined by slow degrees. Europeans later tried to start this industry in India on a factory basis, when demand for steel had increased tremendously. Efforts were made by European firms and the Government to produce iron and steel, but they did not succeed. The inception of the Barakar Iron Works marked its beginning in this country. The formation of the Tata Iron and Steel Company, which began the construction of its work in 1905, the production of pig iron in 1911, and of steel for the first time in India in 1913, marks the second stage of the evolution of this industry. Soon after the Tata's had begun to produce steel, the World War I broke out. Government soon commandeered the Tata Works which were worked to their full capacity during the period of the war. After the war, foreign industry began to compete with the young Indian industry; and the Government adopted a protective attitude by increasing import duties. Other mills were started under the stimulus of the protectionist policy, like the Eastern Iron Company, the Mysore State Iron Works, etc. Today India possesses a promising iron and steel industry.

Indian Sugar Industry

Indian sugar industry is of comparatively recent origin and is a child of protection. If we take *gur* and sugar together, India is the largest producer of sugar in the world. In the economy of India, this industry is put next to cotton textile industry which is given the first position.

There are at present about 150 sugar mills actually in operation. About three-fourth of these mills are situated in U. P. and Bihar. About half of the number of sugar mills in the whole of India are to be found in Uttar Pradesh alone. U. P. also leads in sugar production Bihar is a good second, possessing about 25% of total mills and producing about the same percentage of total output. Madras and Bombay also produce sugar.

The production of sugar in recent years is given in the adjoining table :—

Year	Production (‘000 tons)
1947	900
1948	1,100
1949	1,000
1950	1,000

Thus our annual output of sugar is about 10 lacs tons; and this is also our annual national consumption. We are, as such, self-sufficient. But the scope for the expansion of this industry is considerable. We consume at the present time sugar at the rate of 26 lbs. per head; but in a well-balanced diet, consumption of sugar should be at least 20 oz. per day. If sugar is available at cheap rates, consumption of sugar is bound to increase in the country.

The history of the Indian sugar industry is an interesting reading. In the olden times, we were important sugar producers and exporters. Even as late as 1900, one-half of the sugar produced in the whole of the world was manufactured in our country. The decline of this industry came when beet-root sugar began to be produced in Europe, while Java and Mauritius turned their attention to Indian Markets. The deterioration of the industry continued up to 1932, in which year the import duty on foreign sugar was raised so that effective protection was granted to the Indian industry. The granting of protection was to the Indian industry followed by a phenomenal growth in the number of sugar mills. The history of the present industry, therefore, extends only to the last 20 years, during which period it has made tremendous progress. India has become self-sufficient in sugar, and we can also export sugar to other countries of the world provided it is organized on proper lines.

Paper Manufacturing Industry

India has also begun to produce paper and this industry has been making fair progress. The progress has been really great since the grant of protection. The production of paper now exceeds 2 million cwt.

The manufacture of paper by hand has been carried on in India in ancient times, but like several other industries it languished in face of the competition of foreign paper factories. The first paper factory set up in this country was the Bailee Mills, started on the Hooghly in 1790. The famous Titagarh Paper Mills took birth in 1882 which purchased some of the machinery of the Bailee Mills when the latter went into liquidation in 1905. The manufacture of paper was, in fact, begun in 1922 by the Indian Paper Pulp Company. Indian mills have been started in upcountry centres as well, of which the Upper India Couper Mills of Lucknow is an illustration.

Match Industry

The number of match factories in India is about 30. This industry developed from the year 1922 when protection was granted to it by a rise in the import duty to a sufficient height. The history of the match industry began from an earlier date, but the factories set up before 1922 had to be closed as soon as they were brought into being either because of faulty management, or because of error in selecting a suitable site for factories. The only match factory which continued to exist was the Gujrat Islam Factory of Ahmedabad. Since the grant of protection, the industry has made progress and we are now almost self-sufficient. India produces each year about 26 million gross of matches. A matter of serious concern is the establishment of match factories in this country by the gigantic Swedish Combine which has a control of more than 25 per cent of the total production of match in the world. There has been a vigorous agitation against the operation of this foreign concern.

Glass Industry

Glass was manufactured in olden times in this country but its modern history dates from 1890, when some pioneer efforts were made for starting the glass concerns. Many of the factories set up after that date did not meet with success, but recently they have been more successful. Output of these factories mainly consists of bangles, chimneys, bottles, etc.

For most part the industry is of cottage variety. The cottage industry is spread over a wide area, but is mainly localised in Firozabad in U. P. and Belgaum in the south. This industry is in a good position and satisfies quite a large portion of the Indian demand for glass bangles. Japanese competition at one time made its pressure felt. Glass production on factory system has not yet much developed. The existing factories produce glasswares or bangles as in Firozabad, and lampwares and bottles as in Naini and Bahjoi. The industry has not progressed satisfactorily, because the Government has not granted protection to it, in spite of the recommendation of the Tariff Board in the year 1931.

§ 3. COTTAGE INDUSTRIES

Manufacturing work is carried on not only in the big factories, but also in small work-shops attached to the houses of artisans who work with one or two apprentices or labourers, known as cottage industries. In the narrow sense of the term, cottage industries include only those industries which are carried on in the cottages of the workers. Industries conducted in workshops are excluded from cottage industries and are known as 'workshop industries'. But in the broad sense, cottage industries include all the industries carried on on a small scale. "The term cottage industries," says the *U. P. Cottage Industries Committee Report*, "is used in contrast with organised large-scale industries carried on in mills and factories and includes subsidiary industry which absorbs only a part of the time of the worker. They cover a wide range from the simple village craft, as those of potter and the *charkha* maker, to the highly skilled wood worker of Nagina or Saharanpur".

Cottage industries give employment to about 9.6 per cent of the total population whereas factory industries absorb only 0.6 per cent. The natural inference is that the Industrial India is a land of small industries rather than of factory industries. The Industrial Commission made certain cautious observations on the point, which may well be quoted below :

Apart from the beneficent changes brought about by the cotton mills, the rice mills and the flour mills, modern industrial enterprise has left India in substantial possession of its cottage industries. The imports from abroad and the products of Indian factories have been absorbed by the largely increased demands of the country. The artisans produce commodities which are in demand and so far have not been displaced by factory-made goods, and they work under conditions which they prefer to factory life... A general review of the evidence confirms us in the conclusion

that cottage industries are a very important feature of the industrial life of India, that they are by no means so primitive as they are usually depicted, and that there is no real ground for belief that they are generally in a decadent condition.³

Importance of Cottage Industries

Cottage industries are of numerous kinds and are scattered over a wide range. We shall give here a discussion of the important cottage industries of the country.

Cotton Textile Industry. Hand-spinning and hand-weaving are important occupations of the masses of this country. Of these, spinning is fairly old, and has kept our women busy for centuries. They used to spin in olden times either for home use or for livelihood, though the practice has on the whole declined in recent times. Hand-spinning has lost its importance because the handspun yarn is weak, irregular and expensive as compared with mill yarn.

Hand-weaving, however, still persists and has not been ousted by mills. Generally very coarse and very fine cloth is woven on hand-loom. The preparation of coarse hand-woven cloth is largely the result of the Khadi Movement started by the Congress. The production of very fine cloth is to be ascribed to the inability of the mills to provide varied designs and to meet individual tastes.

In recent times efforts have been made by the Indian National Congress, the various philanthropic bodies and the State Governments to revive the handicraft cotton industry, but it is said that the attempts to bolster up this outofdate industry have been comparatively unsuccessful and it is useless to make efforts to revive this industry. The U. P. Banking Enquiry Committee, however, assert that the decline of hand-loom industry has not been as rapid as is sometimes alleged. Of the total cloth consumed in U. P. about 20 per cent is woven on hand-loom. The industry is reported to show strong signs of vitality.⁴

Leather Industry. Leather industry is rather widespread in the country because animals, which play an important part in Indian agriculture, provide ample hides. Tanning is unfortunately not well developed. Large quantities of hides are provisionally tanned by indigenous coblers either to be sent to Europe or America for better tanning or to be converted into inferior leather goods. Tanning is rather an unpleasant occupation and it might be better done by machinery in factories rather than by human hands on the cottage basis.

Wood Industry. Wood industry has been in existence from very old times, particularly in villages where the necessity of making and repairing the wooden part of agricultural implements makes the presence of the village carpenter absolutely essential. In recent times the urban population has greatly increased the demand for furniture,

³ Quoted by Wadia and Joshi, *The Wealth of India*, pp. 409-410.

⁴ U. P. Banking Enquiry Committee Report.

so that the prospects of the industry have brightened up. The wood industry, as a general rule, should be allowed to continue its present form of cottage industry because the cottage workers live in open healthy surroundings near the source of supply of raw material while such healthy environment may not be available in a factory; and secondly, because the present demand is not sufficient to justify the establishment of factories.

Metal Industry. Metal industry has been worked in villages for very long times where the blacksmith prepares the metallic parts of the various agricultural implements whose wooden parts are completed by the village carpenter. In the urban areas this industry is mainly organized as a cottage industry and with the production of kitchen utensils and other wares. Wholesale merchants often place orders for knives, scissors and other articles of daily use with the cottage blacksmith who are carrying their work satisfactorily.

Ceramics. Pottery plays an important part in the Indian life and therefore, ceramics is a noteworthy cottage industry. The potter plays a significant part in India, particularly in the village economy where he is held in much respect. He produces articles of everyday needs like *surahi's*, *kalsas*, *handis*, *cheelams* and toys for young ones. Pottery is a seasonal industry, being carried on only in dry and cloudless months so that the earth could be dried up. This industry is facing a rather hard time because middle-class persons have now begun to prefer Chinawares to earthenwares, while rich people have begun to purchase brass and other metallic wares.

Oil Industry. Indians use oil in substantial quantities for toilet, lighting, cooking and social and religious ceremonies. This oil is largely provided by village oil-presses, though oil mills also exist in urban areas. Oil-presses still persist and are likely to do so in near future, firstly, because they produce better oil and secondly because there prevails some prejudice against oil which has come in contact with iron as happens in oil mills. It is very necessary to develop our oil industry since at present we export our oil seeds to foreign countries and in exchange we import oil: thus the oil-cake which is a valuable manure is lost by us. "To export the entire oil seeds," Dr. Voelcker aptly remarked, "is to export the soil's fertility." The retaining in India of the oil seeds is of the utmost agricultural importance.

Other Industries. Besides the above, there are many other cottage industries carried on on cottage basis which may be briefly mentioned. Gur making is one of the most important of them and has been existing in spite of the tremendous increase in the sugar-manufacturing industry. Efforts have been recently made by the Government and other private and public bodies to improve this industry. Sugar is also produced on cottage industry basis in *khandsaris* and is known as *khanasari* sugar. Then, there is the *bidi*-making industry which is destined to be organised on cottage basis. No machinery is needed; work is carried in open space; workers come and go whenever they like for they have

to work on piece wages system, all of which favour the small-scale form of organisation. Then there are lac industries, carpet industries, Kashmiri shawl industry, embroidery industry and countless others which are the objects of daily observation.

Difficulties of Cottage Industries

Cottage industries have been declining on the whole for a long time past. Attempts were made in the past by the Indian National Congress and other bodies to bring them back to life, which had the effect of awakening the various Governments to the need of protecting these industries from speedy death. But sufficient work has not yet been done in this direction and the cottage industries have great obstacles in the way to prosperity and growth. The important difficulties which the cottage industries have to face are the following :

(1) The quantity, quality and regularity of the supply of raw materials are far from satisfactory. Workers do not get the right type of materials. The village dealers, from whom artisans make purchases, receive their supplies of raw materials from wholesale merchants who do not care what the quality of the material is. The dealers are also careless about the quality of materials because they know they can sell their stocks quite easily irrespective of the good or bad quality thereof. The artisans have to purchase materials from the village dealer either because there is no other source of supply or because he is the only person from whom materials can be had on credit. Sometimes the itinerant giver-of-order also supplies raw materials, but the conditions do not very much vary. Even such materials, as they exist, are not steadily and regularly available to cottage workers. Special difficulty is faced in the case of partially manufactured material like yarn, brass and sheets.

(2) The illiteracy, ignorance and outofdate practices of cottage workers constitute another problem. They have to work according to the knowledge which has been passed on to them by their forefathers. Being uneducated and illiterate, they cannot think out for themselves new and attractive designs and patterns, while there is nobody to give them guidance in these matters. The same remarks are true with regard to the standardisation of products. It is a great shortcoming of our artisans that they are incapable of keeping themselves in touch with the nature of demand and of improving the quality of their goods in the light of such investigation.

(3) There is no agency to estimate the exact demand of the cottage products so that efforts can be made to take full advantage of it or to exploit it further, and, if necessary, to distribute it equitably among the artisans. At present there is over-production of certain articles at one time, while they become very scarce at others. Supply is not tried to be equated to demand. Internal marketing of cottage products is in need of thorough and systematic reorganisation and development along scientific lines.

(4) Foreign trade in cottage products is an altogether neglected factor. There is foreign demand for certain cottage products, while the demand for others can be easily created. But there is no satisfactory organisation to develop foreign trade in a systematic fashion. Hardly any catalogues are issued or advertisements inserted, while fixity in prices, standardisation of products and regularity of supplies, so necessary for developing foreign trade, are usually lacking.

(5) There are no proper facilities for obtaining credit. Artisans have to borrow from dealers who supply inferior raw materials at high rates, sometimes along with the loans for personal expenses at high rates of interest. So that once the artisan enters into a transaction, he becomes a life-long debtor because of the unmanageable liability that he incurs. Again, considering the high rate of interest charged, he has to part with the finished materials at cheap prices which may be determined at the time the credit is taken.

Suggestions for Improvement

Cottage industries fulfil a definite function in the economic system of a country and in order that they may discharge them efficiently, all the defects and shortcomings pointed out above should be tried to be removed. The following specific suggestions may be made in this direction.

(1) *Steady Supply of Good Raw Materials.* The defects concerning raw materials require immediate correction. The quality of the raw materials supplied to cottage workers must be improved for the quality of the finished products and the excellence of workmanship largely depend upon this factor. Besides the quality, the supply of raw materials needs proper organisation. Efforts should be made to supply them directly and conveniently to the cottage workers themselves. The raw materials should be as cheap as possible.

(2) *Education of the Cottage Workers.* No less important is the necessity of providing proper education to the artisans. Besides primary education, which will broaden their general outlook, they should be instructed in vocational crafts and industrial training. Industrial and vocational schools may be opened which should preferably be put under the Director of Industries.⁵ It was the recommendation of the Industrial Commission that the state should organise demonstration of the new methods and should set up work-shops for the training of the intelligent workers. Jail and reformatory schools should impart education in industrial crafts so that their inmates may

5 "It is high time that we should endeavour to improve artistic education of our young apprentices by adopting the western system of teaching which will cultivate the taste for beauty and diffuse sound knowledge of its rules. Again, the artisans have to be lifted out of their narrow groove and their natural horizon improved if they are to produce fine work. With the lessons on drawing and designing, following traditions of Indian art and craftsmanship, arrangement has also to be made for imparting such general education as will enlarge the mental vision of the artisan while preventing him from falling into a clerical groove"—R. K. Mukerji. *The Foundations of Indian Economics*, p. 398.

enter into these vocations after completing their stay there. The co-operative department may well undertake peripethetic system of demonstration with regard to rural industries.

(3) *Technical Guidance.* In addition to education, technical help of definite character may also be given to cottage worker. Advice in technical matters, training in the technique of production, inventions of new patterns and designs, are some of the examples of this sort of assistance.

(4) *New Tools and Implements.* Another much needed reform is the introduction of new and improved tools and implements. Our cottage workers have been using old implements, which can be easily improved with remarkable results. This work should be undertaken by Government Experimental Factories and Industrial Educational Institutes. The newly invented implements should be made popular by practical demonstrations and dissemination of knowledge in vernaculars, through bulletins, booklets and handbills.

(5) *Organisation of Production.* At the present time organisation of production of the cottage workers is very inefficient and lacks a system. It has to be modified as to make the realization of the full advantages of division of labour and other such devices possible. The state should give all possible assistance in such endeavours. The realisation of the advantages of factory system so far as possible, while continuing the cottage form, is a principle well worth achievement.

(6) *Supply of Capital and Credit.* One of the greatest difficulties faced by the cottage industries today is the lack of proper supply of finance. Artisans have to borrow cash from local money-lender who is the village dealer, at high rates of interest, which takes away a part of their meagre income. It was the opinion of the Industrial Commission that the Director of Industries should give small loans to artisans; while improved tools and implements may be supplied to them on hire-purchase system to become ultimately the property of the artisans. There is much truth in the suggestion that in spite of the not very hopeful experience in the past, the co-operative industrial banks or well-organised co-operative urban banks are the best agencies to meet the requirements of the industries satisfactorily. Co-operative institutions may be established with advantage to finance the rural industries for long and short terms.

7. *Organisation of Marketing.* The necessity of organising the sale of cottage products is of supreme importance. At present the cottage workers are not in a position to capture the market which is definitely theirs. Home markets remain unfed, while foreign markets are exploited. With systematic efforts, they can be made available to cottage workers. Creditable work has been done by Arts and Crafts Emporium, Lucknow, towards the restoration of the connection between cottage workers and Indian and foreign markets. Such institutions may be set up at all important centres throughout the country. The Banking Committee recommended that licensed warehouses and co-operative wholesale depots should be established for

the storage and sale of cottage products. Any scheme of marketing should give due weight to proper advertisement. Calico printing of Farrukhabad, Benaras silk, Agra carpets and such other articles are exported to London and New York in appreciable quantities because of the advertisement they secured at the Wembley Exhibition in 1924.

(8) *The Principle of Co-operation.* The principle of co-operation should be applied to cottage industries. Co-operative societies can be started for a variety of purposes, as for example, supply of capital ; purchase of raw materials and tools and the sale of cottage products. They can provide effective protection to the artisans against the exploitation of the middlemen and the competition of large-scale industries. Germany, Switzerland and Italy have derived much from co-operation and we must follow suit.

(9) *State Assistance.* State can render much help in the rehabilitation of cottage industries. The great development of these industries in Germany is the result of state assistance, not through coercive measures as protective duties, but through judicious diffusion of advice, information and education. Our Government must take lesson from such foreign examples and extend protection to the decaying cottage industries. The Industries Departments have so far concentrated their attention on the commercial aspect of cottage products and not on their qualitative aspect ; they have taught our artisans to produce things which will sell well, and not the things which are artistically excellent. The great deterioration in the quality of cottage products can be effectively checked if these departments take the matter in their own hands, supply good designs and pattern to the workers and provide marketing facilities for their sale.

(10) *Swadeshi Spirit.* Side by side with all these measures must be kindled in the hearts of the people a Swadeshi spirit, the desire to purchase Indian cottage product as far as possible. This will be of great assistance in the sale of cottage products, specially in the beginning when the competition of machine-made goods would be very acute.

The Importance of Cottage Industries

It is sometimes doubted if it is at all advisable to waste time, money and thought on the improvement of cottage industries which seem destined to die a natural death. This suspicion is, however, false for the cottage industries have a distinct place for themselves in the industrial life of the country, and cannot be entirely swept away. It is of great importance that they should be made to play their part in the most efficient manner. Their importance can be appreciated by keeping the following points in view :

(i) Cottage industries provided subsidiary occupation to cultivators *i.e.*, in their vacant time, the cultivators can carry on industrial production on cottage basis. Some of them also provide alternative occupations to cultivators ; *i.e.*, if they like, they can give up agriculture and take to handicrafts. Moreover, they afford livelihood to thousands

of urban artisans. Such an important source of employment is to be preserved and strengthened.

(ii) Cottage industries are suited to the genius of our people and in many respects enjoy natural advantages against large-scale production. Given a proper organisation for instruction, finance, production and marketing, many of them can be firmly established to the benefit of that section of the population which has no alternative means of livelihood.⁶

(iii) The growth of cottage industries will lighten the distress of famines. It was the opinion of Famine Commission of 1880 that the root cause of famines is the unfortunate circumstance that agriculture forms almost the sole occupation of the masses, and they prescribed industrialisation as the only remedy for famines.

(iv) Factory industries have led to the concentration of population in particular areas which has created the problems of over-crowded cities, lack of proper housing, physical and moral degradation, etc. Cottage industries can reduce these evils by the diversification and ruralisation of industries.

(v) Finally, cottage industries afford a means of production where labourers can live in neat, healthy and open dwelling and work with the members of their family. "The collaboration of all the family members not only economises but sweetens labour; culture and refinement come easily to the artisan through his work amidst his kith and kin."

Factory industries vs. Cottage industries

It is sometimes feared that the cottage industries may not be able to compete with factory industries. The latter derive the advantages of internal and external economies of large-scale production, division of labour and mechanisation so that their cost of production may be much less than that of the cottage products. If so, the revival of cottage industries will be fruitless. This is, of course, true in some cases, but there are other cases in which this is not so. Cottage industries have definite advantages, even in matter of cheap production in some cases, while there are forms of production where the cottage basis is inevitable. (1) In some industries machinery cannot replace the hand labour, as for example in *bidi*-making, and they must be organised as cottage industries. (2) Then there are industries requiring high degree of artistic skill of excellence, like *sari*-making and painting. The scale of production of such industries must inevitably be small. (3) The same is the case with industries like tailoring, which cater for personal tastes. (4) Again, all the new industries are cottage industries in the experimental stage. (5) Finally, there are some small-scale industries like machine-repairing which are natural associates of the factories.

⁶ Cottage Industries Committee Report, p. 6.

Strictly speaking, cottage industries and factory industries have their distinct spheres of cheap production ; and where this distinction can be made, both of them should grow and flourish side by side. There is a certain sphere of competition between the two forms of production also, and here cheapness in production, immediately and in the long run, should be decisive factor as to which of the two forms should be encouraged and maintained. It is such wise discretion which can help us to maximise the industrial output of the country at minimum cost.

§ 4. EFFECT OF WAR ON PRODUCTION IN INDIA

The present survey would not be complete or realistic unless something is said regarding the effect of war on the productive capacity and nature of production in general in this country. That our productive capacity was greatly augmented along old channels and newly developed along new channels hitherto unknown or neglected, is an important satisfactory fact to note. During the war, our imports were greatly reduced and indigenous enterprise had risen to the occasion to take their places. Our country had to station, feed and equip a large British, American and African army—an altogether new demand—to cope with which production was augmented. As the United Nations had to meet the onslaught of a fully regimented and prepared hegemony of totalitarian States, they had to increase their output to the utmost, and India was called upon to play an important role in this direction. All these factors were reinforced by a keen desire on the part of industrialists and businessmen in general to plan for increasing our standard of living in the post-War period ; and this envisaged an increase in production even when the War was on. Coupled with this fact was the necessity of increasing production with a view to bring down the soaring prices, which could be done only by increasing production. All these factors led to an increase in the production of commodities in India as a general rule. No doubt there were difficulties in the way. Shipping space being restricted, import of machinery and even skill were greatly hampered. There was a dearth of trained and skilled labour as well. Other factors proved as obstacles. But they were not able to prevent us from raising our production considerably.

Effect on Agriculture

The most important lesson learnt by the people of the country during the World War II was their agricultural backwardness. The cessation of imports, especially Burma rice, worsened our food situation and Bengal famine came with unprecedented horror and destruction. India was not able to feed the fighting forces and Allied Nations as much as she would have liked to. Efforts were made in almost all the provinces to improve agriculture and increase its output. The 'Grow More Food' Campaign started by the Government, though more spectacular than substantial, was not without effect. The work started by the Rural Development Departments under the Congress

Ministries also proved valuable in as much as the machinery then set up and the awakening then made proved useful. New land was brought under plough. Improved methods of farming, supply of improved seeds and manures and such other methods were resorted to. Marketing facilities and in some cases transport facilities were sought to be improved. Efforts were again made to prevent the maldistribution of agricultural production by increasing State control in such matters. It is also satisfactory to note that production was directed into new channels; and greater attention was paid to vegetable growing, fruit-farming, forestry and other like subsidiary industries than in the past. On the whole, consciously or unconsciously, efforts were made to put India on a better agricultural footing and the achievements were both quantitative as well as qualitative. Though much remains to be done before Indian agriculture can be established on a satisfactory basis, it is good that a beginning has been made.

Effect on Industries

The effect of World War II on Indian industries was still more wholesome and salutary and they greatly profited by this war. The output of cotton textile, leather, sugar, iron and steel and other industries was considerably increased. Many new industries were established in this country of which cycle manufacturing, ship-building, aircraft industry, engineering industry, arms and ammunitions manufacturing industry are excellent examples. Technical efficiency also increased. A plan of the technical training scheme and of turning out Bevin Boys was launched. Employment exchanges were also set up to direct the flow of labour into needy channels. All this augurs well for the future.

The advantages narrated above were not monopolised by large-scale industries only; but they trickled down to the cottage industries as well. Many of the languishing cottage industries were given a fresh lease of life while many more were brought into being. And our rural areas began to hum with much activity. Handloom weaving, hosiery, industry, glass industry, hand-made paper industry, leather goods industries, rubber goods industry, soap manufacturing, and so forth were given great stimulus.

Post-War Planning

While production was encouraged, augmented and increased considerably during the war, the future looked brighter still. Those were the days of planned development and in our country the Government of India were busy chalking out a programme of our economic development according to a pre-determined plan. But our industrialists outstripped our Government and brought out a specific "Plan" which ensured the development of agricultural output by 130% and of industrial output by 500% during a period of 15 years. This 15-year Plan was to cost the nation Rs. 10,000 crores which, it was the contention of its authors, the country could very well afford. The Plan

received good response in Government quarters and non-Government reaction was, on the whole, for it rather than against it. It was hoped that all these ideas would not altogether be thrown to the winds; that a plan of post-War development would be prepared for India on a comprehensive basis; and that after the war our productive capacity would be greatly increased and our output would also be fundamentally improved; but nothing much resulted. The industries at the present time are generally passing through an anxious period.

§ 5. INDIA'S POVERTY

India is unfortunately a very poor country. We gave figures to prove this in Chapter 17. It will be useful to discuss in brief why in spite of vast gifts of Nature, a large labour force, and a brilliant civilisation of a bygone age, we are so poor.

Factors on which Material Prosperity Depends

Material prosperity of a country mainly depends upon production and distribution. Other things remaining the same, the more the goods that are produced, the richer will the people be. The fundamental basis of material prosperity is *enormous production*. The second basis of this prosperity is *just distribution of wealth and income*. If the total goods produced are monopolised by a few rich persons, the rest of the population is bound to remain poor. On the other hand, if the total wealth produced is distributed according to the needs of the people, everybody will find himself happier and more contented. The importance of fair distribution is therefore great. In fact, if a man does not get a reward according to the work he does, he will not feel encouragement to produce the maximum that he can: production will in this manner be restricted. The problem of distribution is, therefore, very vital. It is said that in the present social organization, which is called Capitalism, distribution is very unfair: and this is the real reason of the poverty of most of the persons in the world today. Socialism is a state in which this defect will be removed. Hence there is so much agitation these days in favour of Socialism.

Causes of India's Poverty

The root cause of India's poverty is her small production. Our productive resources are so vast that we can be one of the richest countries in the world. But these resources are in many cases lying idle. For instance, our hydro-electric resources are enormous but they remain untapped to a very great extent. Our industrial advantages are so great that we can be a leading industrial nation; but we have only a few industries, the rest of them lie undeveloped. In other cases, our resources are only partially used. For instance, though agriculture is followed as an occupation by almost three persons out of every four, still it is carried on in a very primitive and unscientific manner and produces only 1/5th or 1/6th of what it should produce. This limited production must necessarily make our country poor.

Apart from it, even that which is produced is not distributed properly among the people. Hitherto the British Government in India

were alleged to be "exploiters" meaning thereby that they took away in various forms a large part of the wealth that we annually produced. The rich capitalists are now said to be guilty in this direction: they do not give fair wages and fair rewards to their workers and enjoy a part of what should really go to the latter. This is said to be the secret of their wealth. But their wealth means poverty to the others. This, however, is not at the present time a very important cause of our poverty.

Remedies of India's Poverty

From the above, it is clear that the only way in which we can make our country and ourselves rich is by increasing production as much as we can. We must fully utilise all our productive resources: and employ them at high level of technical efficiency.

TEST QUESTIONS

1. What are the important forms which production takes in India? How do you judge their relative importance?
2. Is Indian agriculture inefficient? If so, why?
3. Differentiate factory industries from cottage industries and explain each of them fully.
4. Write short notes on any five important factory industries of India.
5. What are the main cottage industries in the country. Give a detailed description of such industries.
6. What are the difficulties of cottage industries? What remedies can you suggest for solving them?
7. Show the importance of cottage industries in the economy of a country. Will, in your opinion, cottage industries be in a position to compete with factory industries?
8. What has been the effect of World War II on Indian agriculture and industries? Describe clearly.
9. Why is India poor? What remedies will you suggest to remove it?

EXAMINATION QUESTIONS

U. P., Inter Arts

1. Write a note on Cottage industries in U. P. (1951)
2. Write a note on Extensive and Intensive Cultivation. (1950, 1948)
3. What are the chief cottage industries in U. P.? Suggest measures for their improvement. (1946)
4. What large-scale industries, in your opinion, can be advantageously established in the U. P.? (1945)
5. India has fertile soil, good rainfall, plentiful supply of water and no lack of capital. How will you reorganise agriculture so as to increase agricultural production in India? (1945)
6. Describe in detail any small or large-scale industry that you may have visited. (1945)

U. P., I. Com.

7. India is a poor country. What are the economic causes of this poverty? Suggest some remedies to remove this poverty. (1944)

Rajputana, Inter. Arts

8. What are the difficulties in the way of utilizing the small savings of the Indian people for the development of industries in India? What measures can you suggest for removing these difficulties? (1945)
9. What are the most important factors on which the material prosperity of a country depends? In this connection throw some light on the causes of India's poverty. (1943)
10. Discuss the factors that govern fertility of soil. Suggest measures that can be gainfully employed by our peasants. (1942)

Banaras, Inter. Arts

11. Write a note on Extensive and Intensive Cultivation. (1949)
12. Show how a joint stock company is organised and managed. How does it raise the capital it requires? (1946)

Sagar, Inter. Arts

13. Write note on Extensive and Intensive margins of cultivation. (1950)
14. Name the principal industries of Madhya Pradesh. Discuss their difficulties and suggest remedies. (1950)

Punjab, Inter.

15. Give briefly the main activities of Provincial Agricultural Deptt. Has it achieved any significant results during the last 40 years? (1951)

16. Summarise the main advantages of the factory system of production. (1951)

17. What is the importance of supplementary occupations for improving the lot of peasants? Name some occupations which may be taken up as subsidiary occupations by farmers in hilly regions of the Punjab. (1949)

18. Name two main centres of production in the Punjab for each one of the following commodities: (a) cement, (b) slate, (c) sports goods, and (d) furniture (1949)

19. Discuss briefly the evil effects of excessive subdivision and fragmentation of holdings on agricultural improvement. (1949).

20. What is a cottage industry? Give the main arguments for encouraging cottage industries at the present stage of our development. (1949)

21. Give briefly the main arguments favouring the development of cottage industries in India. (1949)

22. How would you account for the low agricultural incomes in India? (1948)

23. Describe the services rendered by cattle to the cultivator in the Punjab. What steps would you suggest for improving animal husbandry? (1948)

24. Point out the chief defects of the present system of agricultural marketing and indicate the possible lines of improvement. (1948)

25. Briefly outline the effects of the last war on the growth and development of Indian industries. (1948)

26. Give an account of any two cottage industries in India and trace the causes of their decay. (1948)

Delhi, Higher Secondary

27. Why is agriculture so backward in India? What steps are necessary to improve it? (1951)

28. How far is the revival of cottage industries in India desirable? What part can the government play to bring about this revival? (1951)

29. Discuss the effects of World War II on (a) Indian foreign trade, (b) Indian joint stock banking, (c) price level in India, (d) Indian Industries. (1951)

30. Write a short note on subdivision and fragmentation of holdings. (1951)

31. What are the major problems of Indian agriculture? (1950)

32. What is the present industrial policy of the Government of India? Should key industries of India be owned and managed by the state? Give reasons for your answer. (1950)

33. Analyse the main defects in the marketing of agricultural produce in India. What suggestions can you make to improve agricultural marketing? (1949)

34. Would you like further development of large industries in India? What would be the effect of such development on (a) cottage industries, (b) industrial labour? (1949)

35. Write a short note on occupational distribution of India's population. (1949)

36. Describe the importance of cottage industries in any scheme of India's industrial development. (1948)

37. Indicate the importance of agriculture in the economy of India. What are the obstacles to the development of your agriculture? (1948)

Exchange

Book IV

Chapter 44-57

CHAPTER 44

EXCHANGE

The adjustment of rates of exchange constitutes, in the aggregate, the process of distribution—J. B. Clark.

§ 1. INTRODUCTION

Exchange as a Division of Economics

We have studied the Consumption and Production of Wealth and now pass on to the Exchange of Wealth. Under Exchange we shall study the terms on which the goods possessing value, *i. e.*, items of wealth, exchange for one other. We are here called to answer the question: Why does so much of this commodity exchange for so much of that? Why not for more? Why not for less?¹ The explanation and determination of value is, in fact, the central problem of Exchange. Besides this, it also makes a detailed study of markets, money currency, banking, means of transport and communication and other agencies helping exchange of wealth.

Exchange, as we shall presently see, increases the utility of goods exchanged. It may, then, be called an act of production, in which case the department of Exchange would be included in the department of Production. But it has been found advisable to treat Exchange quite separately since it considers several problems not falling within the proper scope of Production.

Exchange as an Economic Act

Exchange as a branch of Economics should be distinguished from the act of exchange. The meaning of *exchange* in the latter sense can be explained with the help of an example. Suppose you give your hat to your friend and take his book in return. This is an example of exchange. But what are its characteristics? Firstly, *both* you and your friend have transferred some wealth; secondly,

¹Walker, *Political Economy*, p. 79.

this transfer is *voluntary*; finally, it is *legal*. Exchange may thus be defined as a *lawful, voluntary and mutual* transfer of wealth between two parties, each transfer being in return of the other. For instance, if 'A' willingly sells his book to 'B' for Rs. 5 it is an exchange because the transfer of wealth is lawful, voluntary and mutual. But, suppose a thief steals away your watch; this transfer of wealth will not be called an exchange because it is illegal, forcible and non-reciprocal—the thief having given you nothing in exchange for the watch. Again, if a man pays Rs. 50 to the Government as fine, the transfer of wealth, though legal, is not exchange because it is compulsory and no corresponding consideration is received by the payer.

Exchange covers all commercial transactions. When you purchase a pencil or sell your book, you take part in an exchange. When the labourer agrees to work for 8 annas a day, he takes part in exchange. So does the landlord when he lets his land; for here, too there is an exchange of the use of land for money. It is the same with capitalist who lends money at interest; for he supplies one or more people with means of production and accepts payment for doing so.²

Growth of Exchange

Exchange of goods is such a common feature of modern life that it is difficult for us to imagine a society without this general practice. But there was, probably, a time when no exchange was ever entered into. In the primitive stage of self-sufficiency each family produced all the things it consumed and there was absolutely no necessity of exchanging goods. With the advent of the division of labour and specialisation of occupations, the need arose for the exchange of the commodities produced by one man for those produced by another. And in modern times, exchange has become an indispensable link in the chain of economic activities. It is exchange which joins production and consumption. Nearly all the wealth that is created today is for the purpose of exchange. The wheat stocked in granaries and the vegetables grown in fields, the cloth woven by weavers and the shoes prepared by shoemakers, are mostly meant for sale and only little for the personal consumption of their producers. This is why, when we estimate our wealth, we do not estimate it according to its utility for *us*, but solely according to its exchange value, *i. e.*, its utility for *others*.

Theory of Exchange

Every act of exchange has the following three essentials :

²See N. G. Pierson, *Principles of Economics* (Translated from the Dutch by Wotzel), p. 15.

(a) There must be at least two parties to make exchange possible: one, willing to part with some article in exchange for the goods which the other party desires to give; and similarly the other willing to accept the article which the former likes to part with, in exchange for the goods he himself likes to give.

(b) Both parties must gain by exchange. A man gives a commodity in exchange for another because the latter has greater utility to him than the former. If a man thinks that the thing being given to him in exchange has less utility to him than that he is asked to part with, he will not agree to such a transaction. A cobbler gives his shoes in exchange for wheat because he wants the latter urgently, while the former is not required by him.

(c) Transactions cease when one of the parties begins to lose as a result of exchange. If the cobbler thinks that he has got all the wheat he requires, so that the utility of the next seer of wheat is less than that of the shoes he is required to give, he will not agree to such an exchange. He will now prefer to exchange his shoes, not for wheat, but for some other commodity, say cloth, which has more utility to him than wheat.

§ 2. ADVANTAGES OF EXCHANGE

Both Parties Gain in Utility by Exchange

The most important advantage of exchange is that each party to it gains in utility. Each party to the exchange, we have seen above, continues to take part in it so long as the article he receives has more utility to him than the article he has to give in its return. Every act of exchange thus brings him a net gain of utility. As soon as the utility of the article offered to him is about to fall below the utility of the article he has to part with, he stops entering into further transactions; thus the point at which a net loss of utility might arise is not reached. Exchange is continued so long as it results in a gain in utility; and is discontinued as soon as a loss in utility is about to appear.

This is true of each of the two parties carrying on exchange. Obviously, then, both parties gain in utility by exchange. The idea that if one party gains, the other must lose and that the two cannot gain together, is obviously a mistaken notion.³

³ "If exchange never led to profit, or if every exchange necessarily implied that some one had been cheated, it is difficult to understand why men have persisted for so many centuries in carrying on exchange. In reality, whatever I yield in exchange for something else is always less useful for me, less desirable, and hence worthless, than the thing I acquire. Otherwise I should not give it up. The person who exchanges with me pursues exactly the same line of thought. Each of us thinks that by the exchange he receives more than he gives; and however strange this may appear, we are both right." Gide, *op. cit.*, p. 198.

Let us illustrate it by an example. Suppose 'A' has got 9 units of rice and 'B' 9 units of cloth; and both persons are of similar temperament so that the utility of the various units of rice and cloth are the same to each of them. The following table shows the utility of successive units of rice and cloth :

Unit	Marginal Utility of	
	Rice	Cloth
1	90	80
2	82	70
3	74	62
4	66	55
5	50	50
6	32	26
7	24	20
8	16	14
9	8	6

In the case of the first transaction, 'A' will give his 9th unit of rice, whose utility is 8; and will get the first unit of cloth, whose utility is 80. His gain in utility is $(80 - 8) = 72$. Similarly 'B' will part with the 9th unit of cloth, whose utility is 6; and will get the first unit of rice, whose utility is 90. He will, therefore, gain in utility to the extent of $(90 - 6) = 84$. The first transaction, as such, brings a net increment of utility to both 'A' and 'B'. Further calculation will show similar gain due to succeeding transactions. The loss in utility begins to appear after the fifth transaction when no more exchange will take place. Both the parties must gain in utility as a result of exchange; otherwise, the transaction will not take place.

It is sometimes asked that just as both the individuals taking part in exchange gain in utility, similarly are two nations taking part in international trade also benefited? This is rather a complicated question. If both the countries are on the same level of economic development and are free to act, and voluntarily enter into trade, each of them will surely be benefited. But if one country is forced by another country to exchange certain articles produced by it for the articles of the latter country, it may be a loser. This may happen when a colony or dependency is made to enter into trade relations with the imperialist country forcibly or indirectly.

Other Advantages

Besides increasing the utility of articles in the possession of both the parties, exchange confers many other benefits as well. Some of them are given below :

(a) Exchange enables a country to utilise, in the best possible way, the resources which without exchange would remain unused. India, for instance, produces cotton more than her requirements and could she not sell it to Japan and Great Britain, it will go to waste. It is exchange, indeed, which enables us to obtain fancy prices even for that large quantity of wealth which is almost superfluous to us.

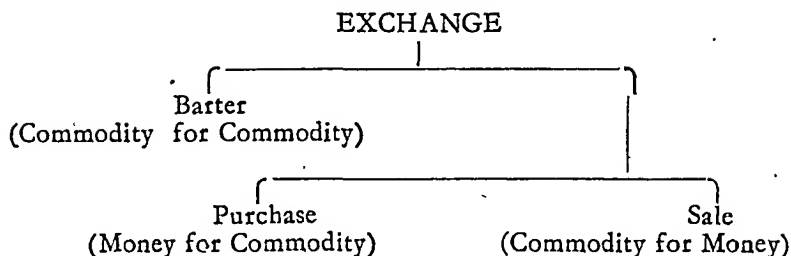
(b) Exchange has made division of labour, in all its forms and phases, an accomplished fact. In the absence of exchange, each man will have to produce all that is necessary to satisfy his wants. If his wants are 20, he will have to carry on 20 different trades and will become Jack of all trade but master of none. It is exchange which enables each man to produce things according to his aptitude rather than to his wants. Similarly, exchange enables each country to produce the things for which it is best fitted. The productivity of each man and each nation is thus maximised by exchange.

(c) Exchange widens our markets and increases the scale of production. The internal and external economies, which large-scale production makes possible, reduce the cost, and therefore the price per unit.

(d) Exchange enables us to get the things which we do not ourselves produce and which we could not otherwise get ; for example Parker Fountain pens, motor cars, etc. In the times of calamities like earthquakes, wars, and famines, we can get the necessary articles from other countries by exchange.

§ 3. FORMS OF EXCHANGE

Exchange, in modern times, takes place through the medium of money. We sell almost everything for money and purchase the required articles with money. But there is another form of exchange also which has now disappeared and which is called barter. Exchange thus takes two forms : (a) *Barter*, that is, direct exchange of one commodity for another (without the medium of money, as for example, the exchange of wheat for cloth ; and (b) *Purchase and Sale* : exchange of a commodity for money is called sale, and exchange of money for a commodity, purchase. The following table elucidates this simple division :



§ 4. BARTER

Barter

Barter, *i.e.*, direct exchange of one commodity for another, was the earliest form of trading. It was associated with so many inconveniences that it soon disappeared from almost all the civilised countries of the world. It is now to be seen only in some economically backward tracts. In our country, it has long ceased to be a common feature of the urban areas. But it still lingers on, to some extent, in rural tracts: In villages, we very often come across a cultivator exchanging his surplus wheat for weaver's cloth, paying for the services of barbers and carpenters in grain, and his son purchasing ink tablets and writing paper for a handful of rice and wheat. But barter is, on the whole, definitely declining in importance, not only in India but everywhere in the world⁴.

Conditions Making Barter Possible

Barter is possible only under very primitive conditions with limited area of exchange and general backwardness.

(1) *Limited Wants*. Barter requires two persons whose disposable possessions suit each other's wants. This can conveniently happen only if the wants of the members of a community are very few. It becomes increasingly difficult as human wants increase in number and variety. 'A', who wants to give wheat and get milk, may hope to find 'B', who requires wheat and is willing to part with milk. But 'X' who wants to give a watch and get a fountain pen, may not find a man who may be willing to give a fountain pen and take a watch, evidently because fountain pens and watches are not as commonly required and possessed as wheat and milk.

(2) *Limited Area of Exchange*. Barter is possible only if the area of exchange is limited so that the inhabitants may not have to lose much time in finding out the right man for barter. If the area is small, the inhabitants are likely to be acquainted with each other's

⁴Barter flourishes chiefly among uncivilised communities, or those reduced to severe straits by the operation of a destructive war; though survivals of this method as well as of many other uncivilised ones, may be seen in the dealings of children with one another. Hadley, *Economics*, page 71.

wants ; and, even if they are not so acquainted, much time will not be lost in finding out the proper person.

(3) *General Backwardness of Society.* Barter is possible only under primitive conditions where there is no common medium of exchange, no means of estimating the relative values of two commodities and no method of exchanging goods unless one thing can be immediately transferred and another immediately accepted. Even under primitive conditions barter may be wellnigh impossible if a man's possessions cannot be subdivided without loss. Suppose a man possesses only a cow : it will be impossible for him to obtain an article of small value by direct exchange.

Obviously then the conditions under which barter is possible are imaginary rather than real. Professor Cassel's assertion that there has never existed in the history of human life a society normally and wholly dependent upon the exchange of goods without the use of money, seems to have much force.

Inconveniences of Barter

The above account has probably made you look upon barter with a sense of curiosity. Now, try to be a bit reflective and imagine yourself in a society in which barter is the only form of exchange and no money is to be seen. You will surely feel very inconvenient there and will like to come back to your own society where money is used. If anybody asks you the inconveniences you had to face there, you will probably relate them as under :

(a) *Want of Double Coincidence.* Barter, you will say, is possible only if a man has to part with a thing which another man wants, and wants the thing which the other has to part with. In other words, *the first difficulty of barter is to find two persons whose disposable possessions coincide or suit each other's wants.* A hunter having plenty of game may want arms and ammunitions to kill animals, but those who have arms may happen to be well supplied with game so that no direct exchange is possible. This difficulty becomes more prominent and frequent as wants multiply and area of exchange extends.⁵

⁵This inconvenience has been faced by many travellers in primitive countries where barter prevails. We give here Lieutenant Cameron's account (in "*All Across Africa*") of the trouble he had in buying a boat when travelling in Africa. "Syde's agent wished to be paid in ivory, of which I had none ; but I found that Mohammad Ibn Sihb had ivory and wanted cloth. Still as I had no cloth, this did not assist me greatly until I heard that Mohanumad Ion Gharib had cloth and wanted wire. This I fortunately possessed. So I gave Ibn Gharib the requisite amount in wire ; whereupon he handed over cloth to Ibn Sihb, who in his turn gave Syde's agent the wished for ivory. Then he allowed me to have the boat."

W. S. Jevons, similarly, relates many interesting cases of a similar nature (in "*Money and the Mechanism of Exchange*"). For instance, when Mr. Wallace was travelling in the Malaya Archipelago, in some of the islands, where there was no paper currency, he could not procure supplies for dinner without a special bargain and much chaffering upon each occasion. If the vendor of fish or other coveted eatables did not meet with the sort of exchange desired, he would pass on, and Mr. Wallace and his party had to go without their dinner.

(b) *Want of a Common Measure of Value.* The second difficulty in barter, you will add, is to determine and remember the rate of exchange. In the absence of a common measure of value (*i. e.*, a commodity in terms of which the value of all the commodities may be estimated) the value of each commodity in terms of all the other commodities will have to be found out and remembered. How much milk should be given for a yard of cloth and how much cloth for a pair of shoes? It is rather difficult to determine how much of any one commodity should be given for a certain quantity of all the other commodities. In a state of barter, the current price list, if such were prepared, would be a very complicated document, for each commodity would have to be quoted in terms of every other commodity. Between one hundred articles, there must exist no less than 4,950 possible ratios of exchange! The absence of a common measure of value is thus a great inconvenience.

(c) *Want of Means of Sub-division.* The third inconvenience of barter, you will probably continue, is the impossibility of dividing certain goods for the purpose of exchange. A ton of corn and a maund of milk may be portioned out: but what is to be done by a tailor who has a coat ready for exchange? The cost much exceeds in value the bread which he wishes to get from the baker; but he cannot cut the coat up without destroying its value.⁶ The difficulty of the division of each commodity for the purpose of exchange is thus a great inconvenience.

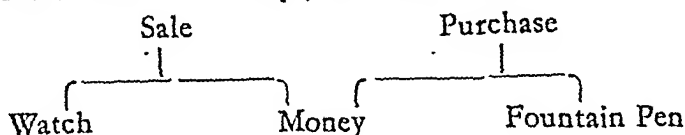
§ 5. SALE AND PURCHASE

In order to avoid the inconveniences of barter, human beings invented money. Everything began to be exchanged for money. Nowadays everything is bought for money and is sold for money. When an article is exchanged for money, it is called sale; and when money is exchanged for an article, it is called purchase. Hence in modern times the form of exchange is purchase and sale; and the modern age is called the Age of Purchases and Sales. As purchases and sales take place through the medium of money, the modern economy is often called Money Economy.

In the system of purchases and sales, we do not have to face the inconveniences which we have to face under barter. (i) Under money economy, there is no need of double coincidence, *i. e.*, of finding two persons whose disposable possessions coincide or suit each other's wants. If you want to part with wheat and obtain gram, you do not have to seek a man who wants wheat and can part with gram. All that you have to do is to sell your wheat to a man who wants it for money; and then purchase gram from another person who wants to sell it. Similarly, if you want to obtain a fountain

⁶W. S. Jevons, *Money and the Mechanism of Exchange*, pp. 3-5.

pen for a watch, you need not find out a man who will like to give a fountain pen in exchange for a watch. You can sell the watch for a certain sum of money; and then with that money you can



purchase a fountain pen wherever you like. In this way, barter is broken up into two parts : (a) sale and (b) purchase. Under barter you have to deal with one man ; whereas under money economy, you have to deal with two persons, though this makes the transaction easier than under the barter system. (ii) Use of money makes it possible to remember the price of each article in terms of money only, and not in terms of every other commodity entering into exchange. If there are 100 articles in a society, we will have to remember under money economy only 100 prices or exchange rates. But under barter system, there will be not less than 4,950 exchange rates. (3) The question of subdivision of articles does not arise ; because every article is bought and sold for money, and money can be easily subdivided. Under the barter system, if you want 1 seer of milk in exchange of coat, this exchange is not possible because a coat cannot be subdivided. But under money economy, you can sell your coat for Rs. 25 ; and out of this, you can pay eight annas for purchasing a seer of milk.

§ 6. EXCHANGE MECHANISM

The transfer of goods from producers to ultimate consumers does not take place directly. The goods pass through various agencies before reaching final consumers. These agencies and auxiliaries together constitute what is known as the *exchange mechanism*. The chief instruments and auxiliaries of exchange are the following :

- (a) *Traders* who bring buyers and sellers in close contact.
- (b) *Markets* where things are bought and sold.
- (c) *Money* for or with which things are sold and purchased.
- (d) *Means of transport and communication* for sending goods and communicating business conditions from place to place.
- (e) *Credit instruments and credit institutions, i. e., banks* which help the transmission of money from place to place.⁸

TEST QUESTIONS

1. What do you mean by exchange ? Distinguish between exchange as a division of Economics and as an economic act.
2. Explain the origin of exchange. What are its essential characteristics ?
3. Do you think exchange has been a great help in increasing the comforts and progress of people. If so, how ?

⁷They have been discussed in detail in subsequent chapters.

⁸See my *Business Methods and Machinery* for detailed discussion.

4. What are the forms usually taken by exchange ? Describe fully.
5. What do you mean by barter ? What conditions make it possible ? Discuss its shortcomings.
6. Why was money invented ? What qualities does it possess ?
7. Write a short note on the "Exchange Mechanism."
8. "Internal commerce does not increase the wealth of a nation since it only transfers goods from one person to another." (Taylor) Do you agree ?
9. Give two examples of one-sided transfers ; and two of two-sided transfers.
10. What are the advantages of the exchange between India and Japan ? Between a lawyer and a doctor ?

EXAMINATION QUESTIONS

U. P., Inter Arts

1. Discuss the advantages and disadvantages of Barter. How has the use of money led to the removal of the inconveniences of Barter. (1951)
2. What are the problems that we study under the head 'Exchange' in Economics. Point out the necessity of having any exchange at all. (1950)
3. Is it true to say that Exchange is the Barter of the comparatively superfluous for the comparatively necessary ? Explain the advantages of Exchange, giving illustrations from India. (1949)
4. Write a note on Coincidences of Barter. (1948)
5. How does barter originate ? Why is Sales-Purchase system better than barter system ? (1947)

U. P., Inter. Com.

6. Explain the condition in which barter is possible. Why does sale for money take the shape of barter. (1949)

U. P., Inter. Ag.

7. Write a short note on "Barter." (1950, 1948)

Raj., Inter Arts

8. Write short note on 'Inconveniences of Barter'. (1949)
9. Is it true to say that exchange is the barter of the comparatively superfluous for the comparatively necessary ? Explain the advantages of exchange, giving illustrations from India. (1943)
10. Fully explain how economic system could never have evolved to its present position without the use of money. (1943)
11. What is barter ? Explain how the use of money originated in the inconveniences of barter. (1942)

Raj., Inter. Com.

12. Explain the functions of money. Why has money exchange replaced barter ? (1948)
13. Write a note on Gains of Exchange. (1947)
14. Write a note on Barter. (1946)

Patna, Inter. Arts

15. Define money. What are the difficulties of Barter ? (1948 A)
16. What are the advantages of conducting transactions through Money rather than by Barter ? (1946 A)

Patna Int. Com.

17. What disadvantage would you have if there be no money in the community. (1949 A)

Banaras Int. Arts

18. What are the difficulties of Barter ? Is it true to say that in an exchange transaction if one party gains, the other loses ? Carefully explain your answer. (1946)

Banaras, Int. Com.

19. Explain what is Barter. (1946)

Delhi, Higher Secondary

20. Mention the principal disadvantages of barter system. Can you explain the importance of barter system in the rural economy of India at the present time ? (1948)

MARKETS

The term market in Political Economy should have reference first to a species of commodity, secondly to a group of exchange; there are as many markets as there are groups of exchanges—Walter.

§ 1. INTRODUCTION

If you want to purchase a pencil, a hat, a book, fruits or vegetables, you will have to go to the *Market* for the purpose. A market, in the popular sense, is the place where commodities are purchased and sold, or where exchanges take place. A study of markets, which are important auxiliaries of trade, thus falls within the scope of Exchange and shall occupy our attention in this chapter.

Definition

In popular language the term market stands for the *actual place* where purchases and sales are carried on. But in Economics, this term is used in a special sense. To understand this correctly, the following things must be carefully grasped :

(i) Some time back when the means of transport had not developed and a commodity was sold at the very place of its origin, market could be correctly defined as a place where things are actually bought and sold. But this is no longer true today. Now it is not necessary that the wheat grown in village Phaphamau should be sold in that very village. Quite possibly this wheat may be sold to a merchant in Allahabad, or Bombay, or even London. The rate can be settled by correspondence or telegram or cablegram; and the wheat can be sent by rail and ship.¹ As such, under modern conditions, the market of the wheat is not located in Phaphamau; on the contrary, it is spread over the entire region where buyers and sellers exist. Hence modern economists are of the opinion that a market is not a place but a region. The entire region over which the buyers and sellers of a commodity are spread is the market of that commodity.

¹With the modern development of means of communication, traders need not be literally assembled to make a market; they may be scattered over a whole large town or over a region of country, if by the means of the post office, telephone, telegraph and published price lists, they are in close communication. And the more portable the merchandise and efficient the means of communication, the wider can be the range of a market. And many markets are continuous in time, only interrupted by Sundays and holidays, and night time. See Devas, *Political Economy*, Bk. II; Ch. II. Also Nicholson, *Political Economy*, Bk. II; and Flux, *Economic Principles*, Ch. III.

dity. Cournot, a great economist, wrote that by the term market is meant "not any particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly."²

(ii) There can be no market without buyers and sellers. If there is no buyer for an article, that article will not be sold at all and there can be no market for such an article. Similarly, if there is no seller of a commodity, the question of its sale does not arise, and therefore there can be no market for it. As such, it is clear that there can be no market in the absence of buyers and sellers. In other words, buyers and sellers are important elements of a market.

(iii) One other thing to remember is that in Economics one market is identified with only one commodity. The market for wheat is supposed to be quite separate from the market for books. A market is only for one commodity, and never for more than one commodity. In actual life, one will find that from the same shop one can often purchase books, fruits as well as cloth. But in Economics, whenever one speaks of a market, the reference is to a single commodity.

(iv) The region over which the buyers and sellers of a commodity are spread will be called a market only when they enter into exchange with one another. If there is no purchase and sale in a region, it cannot obviously be called a market. Hence the existence of competition in a market is absolutely essential. If there is perfect competition³ in the market, then the price of the commodity will be the same throughout the length and breadth of the market. In that case, no seller will charge for the commodity less than what other sellers are charging; and no purchaser will pay for it more than what other purchasers are paying. In consequence, the same price will prevail throughout the market.

Hence we can give the following definition of the term market : *The whole of a region over which the buyers and sellers of a commodity are spread and carry on transaction among themselves is called a market.*

Some Important Definitions

We give below some well-known definitions of the term market as also their criticism in the light of the definition we ourselves have given above.

Seager's Definition. Seager gave the following definition of market : "By market we mean the place or conjunction of means of communication through which buyers and sellers are brought

²Quoted by Marshall, *Principles of Economics*, p. 324

³The meaning of the term Perfect Competition has been explained in § 2, post.

together for the exchange of economic goods."⁴ The defects of such a definition should be obvious. Firstly, it is a mistake to say that market is a place. Secondly, this definition does not state that a market refers to a single commodity. Thirdly, it mentions that buyers and sellers assemble for exchange but it should say that they enter into transactions; for if they assemble but do not enter into transactions, a market cannot be established.

Cournot's Definition. Cournot means by the term market "not any particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly."⁵ This definition is quite satisfactory as it includes every essential point.

Jevons's Definition. Jevons was a great economist of England. He writes: "Originally a market was a public place in a town where provisions and other objects were exposed for sale; but the word has now been generalised so as to mean any body of persons who are in intimate business relations and carry on extensive transactions in any commodity."⁶ In this definition, market is identified not with region but with the buyers and sellers of a commodity. This, however, is not a defect of the definition because the term 'market' can be defined without bringing in the idea of region. Other essential things are duly included in the definition.

§ 2. PERFECT AND IMPERFECT COMPETITION AND MARKET

Perfect Competition and Perfect Market

A market in which perfect competition prevails is known as a *Perfect Market*. Perfect competition has three requisites: (i) There should be free competition among buyers and sellers. Buyers should freely compete with sellers; and buyers among themselves and sellers among themselves should be in free competition. (ii) The number of buyers and sellers should be large. (iii) Every buyer and seller should have full knowledge as to the price at which the article is being sold in different places. Possessed of such knowledge, no seller will accept a price lower than what other sellers are accepting; and no buyer will pay a price higher than what other buyers are paying.⁷ If these three elements are present, the competition is called Perfect Competition; and the market is called, Perfect Market.

⁴ *Principles of Economics*, p. 110.

⁵ Quoted by Marshall, *Principles of Economics*, p. 324

⁶ Jevons, *Theory of Political Economy*, pp. 84-85.

⁷ Meade, *An Introduction to Economic Analysis and Policy*.

Under these conditions, the price of the same commodity will remain uniform throughout the market. If any seller raises his price, his customers will come to know of it ; and without thinking of their friendship for the seller or of the good qualities of the seller (because there is free competition), they will begin purchasing things from some other seller. Similarly, if any buyer wants to pay a lower price, no seller will sell him the commodity because every seller knows that at the prevailing price he will get many purchasers. Hence buyers will have to pay the same price which other buyers are paying. As such, in a perfect market, the same price will prevail at any particular time.

So important is this fact that it is said that a single competitive price is both the characteristic and the test of an economic market. If an article is being sold at two different prices at two places in the same city, we will say that there are two markets for the same commodity. For instance, if potatoes are being sold in Allahabad at 8 as. per seer in Chowk and 12 as. per seer in Katra, we will say that there are two markets for potatoes in Allahabad, a Katra market and a Chowk market.

Cost of Transport. If the market is very large, variations in prices, equal to the cost of transport of goods from one place to another, are to be allowed for. For instance, suppose we get guavas at Allahabad at the rate of six annas a dozen ; and the cost of transporting them to Kanpur is two annas a dozen. Now, if we get guavas at Kanpur for eight annas a dozen, we will say that Allahabad and Kanpur are the parts of the same market.

Perfect Market is an Imaginary Concept. A perfect market does not really exist because perfect competition is a rare occurrence. But a tendency to perfection is certainly discernible. And the more nearly perfect a market is, the greater is the extent of free competition and the stronger is the tendency for the same price to be paid for the same thing at the same time in all the parts of the market.⁸

Imperfect Competition and Imperfect Market

The type of competition and the type of markets we actually come across in our daily life are called *imperfect*. The reason for this is that the three essentials of perfect competition that we have mentioned above are not always present in real life. In this book, we have studied only perfect competition. Imperfect competition is a topic of somewhat difficult nature ; and hence it has been left out here.

⁸See Marshall, *Principles of Economics*.

The Law of Indifference or of Markets

Under free competition, if a commodity is perfectly uniform or homogeneous in quality, any portion of it may be indifferently used in place of another equal portion; and in the same perfect market and at the same moment, all portions must be exchanged at the same price. There can be no reason why a person should treat exactly similar things differently. If the market is perfect, no purchaser will pay for the same commodity more than what is paid by any other purchaser. So long as he gets what he requires, he is indifferent as to who supplies it; and if the selling price of one seller is less than that of another, all purchasers will purchase from him. In the same way no seller will sell an article for a price lower than that obtained by any other seller for the same article. These facts mean that *in the same open market, at the same time, there can be only one price for the same commodity*. By the same commodity, we mean, of course a commodity of exactly similar quality, grade and description, any one portion of which may be used or held *indifferently* in place of an equal portion. This tendency or principle is described by Jevons as the *Law of Indifference*. 'It tends to operate in all markets, but obviously it is not *exactly* operative in any market. In the first place, perfect competition exists nowhere; and, secondly, the existence of competition itself presupposes certain temporary variations in price as between one dealer and another, although the tendency is to fix one price only for one commodity.'⁹

§ 3. THE EVOLUTION OF MARKETS

The nature and extent of markets have changed fundamentally through passage of time. Formerly we had small general markets where almost all the things of ordinary requirements were sold. Now they have been replaced by international and specialised markets. The evolution of markets may be looked upon from two standpoints: (a) the Geographical, and (b) the Functional.

The Geographical Evolution

Here we consider the development of markets from the viewpoint of the area occupied by buyers and sellers. There have been three main stages of this type of evolution, namely, the local market, the national market, and the international or world market.

1. *The Local Market*. If the buyers and sellers of a commodity carry on business at a particular place, the market for it is said to be

⁹ S. E. Thomas, *Elements of Economics*, p. 168. Also see Sidgwick, *Political Economy*, pp. 44-45. There is another *Law of Markets* as propounded by J. B. Say, which states that, "Every commodity will find a sale more readily with every increase in the variety and abundance of other commodities." Jevons' *Law of Markets* is quite different from Say's Law. See Gide, *op cit*.

local. For instance, the markets for such perishable articles as milk and vegetables are largely local. Similar is the case with bulky commodities like bricks and sand which cannot be sold to purchasers at distant places, because of the heavy transportation cost. But with the introduction of the "Cold Storage" (which preserves perishable commodities for a sufficiently long period) and cheap and quick means of transport, the market for some of these commodities is becoming wider.

2. *The National Market.* If the purchasers and sellers extend over the length and breadth of the entire country, the market is said to be national. *Dhotis, saris* and caps have a national market in our country.

3. *The International or World Market.* The buyers and sellers constituting this market extend to the ends of the earth. The market for cotton cloth for shirting and suiting, of precious metals and stocks and shares, is international.

Geographically, then, markets have evolved from local markets into national and international ones.

The Functional Evolution

The development of markets may also be traced according to the functions performed by them. The successive stages of evolution, from this point of view, have been general markets, specialised markets, marketing by sample, and marketing by grade.

1. *General or Mixed Markets.* In old days markets used to be general or mixed, in which articles of all sorts and descriptions were offered for sale. Such markets have now declined in importance, though in villages and small towns of our country, they still exist in large numbers. In village markets one can still purchase almost all the things of ordinary requirements from one and the same market. As against this, the markets in cities have become specialised

2. *Specialised Markets.* The next step in the evolution of markets was their specialisation. Hitherto markets were general and used to offer for sale a large number of different goods. But with the increase in output, number and varieties of articles, each market began to specialise in the sale of certain commodities only. In each big city, for instance, there are to be seen separate markets for the sale of precious metals, fruits and vegetables, etc., which are known as *Sarafa, Tarkari bazar* and so forth. Specialisation of markets leads to more effective competition, greater choice in purchase, and many other similar conveniences.

3. *Marketing by Sample.* The next stage in the functional evolution of markets is marketing by sample. As the classes of goods

and the varieties in each class increase, it becomes difficult for a businessman to transport all the goods to the market place and to display all of them in the shop. He, therefore, adopts the method of selling goods by sample. He takes out samples of all goods offered for sale, which alone need be carried to the market place and displayed in the shop. The advantages of marketing by sample are several. The sample can be more easily handled than the bulk. The cost of transporting goods to the market place is much reduced. The extent of markets increases since samples can be easily sent to distant places through the agency of the Post Office. At the same time sellers are enabled to select from a great variety of goods with increased ease and quickness.

All commodities cannot, however, be sold by this process. It is applicable only to those articles which are uniform in quality and which permit of the separation of a sample. It is quite practicable in case of raw materials, like wheat, and most of the manufactured articles.¹⁰

4. *Marketing by Grade.* Marketing by sample leads to marketing by grade. According to this method, the various kinds of a commodity are divided into certain definite grades: and each grade is given a distinct name or mark. These grades are well known to businessmen so that a reference to the name or mark of a grade communicates the exact idea of the quality in question. Thus "Pussa No. 12" is a distinct variety of wheat. Sellers can, then, quote the price for the various grades even without showing samples, and similarly purchasers can order for a commodity by a mere reference to the name or mark of the grade. The selling of goods by grade makes the purchase and sale easier and increases the extent of the market considerably further.

General markets, specialised markets, marketing by sample and marketing by grade are the successive stages in the functional evolution of markets.

§ 4. TYPES OF MARKETS

Markets may be classified on the basis of space or time.

Space Markets

From the point of view of the space limits of a market, *i.e.*, the space over which competition among buyers and sellers spreads, we

¹⁰ Simple and common commodities such as wheat, coal, cotton, wool, etc., are usually bought and sold in large quantities and it is obviously impossible for the buyer to inspect every single grain of corn he buys. Definiteness is obtained jointly in two ways, namely, by grading and by sample. Thus Manitoba wheat is graded as Nos. 1, 2, 3, etc. Cotton is graded as fair, middling, low middling, etc. A buyer may purchase goods by grade. Later on he might compare the goods supplied with the standard sample represented by that particular grade. If the goods fall short of the standard sample, they can be returned. See Norman Crump, *A First Book of Economics*, pp. 20-21.

have local, national and international markets. They have already been discussed.

Time Markets

Markets also vary according to the period of *time* which is allowed to the forces of demand and supply to bring themselves into equilibrium with one another. Markets classified from this angle of vision are called time markets. The following classes of time markets may be noted : (1) *The Short-Period Market*. Here the supply is limited to the stores which happen to be at hand. Therefore, in the equilibrium of demand and supply, the demand plays a more important part than the supply. (2) *The Long-Period Market*. If the period is sufficiently long, the supply will be influenced, more or less, by the cost of producing the commodity in question. (3) *The Very Long-Period Market*. If the period is very long, this cost will in its turn be influenced, more or less, by the cost producing the labour and the material things required for producing the commodity.¹¹ The implications of this division will be clear to the reader after he has studied the theory of value.

Fair and Black Markets

Markets may also be divided into *fair* and *black*. During the period of a war, prices of all the goods tend to shoot up because of a scarcity of goods used for civil consumption. The productive capacity at such a time is used for producing war materials and civilian goods consequently begin to fall short. In order to ensure that the sellers do not charge an unfairly high price, the Government controls the prices of various articles. When goods are sold at control price in the market, it is known as a *Fair Market*. But when goods are sold above the control price, the market is known as *Black Market*. Black marketing is illegal and a man who sells an article above the control price is usually liable to a fine or imprisonment or both. But still black marketing continues on account of high rates of profit. In India black marketing was rampant in the early years of the war but later the Government became strict and the practice declined. But after India became free, black markets revived. To get rid of them, the Government adopted the policy of decontrol at the instance of Mahatma Gandhi. But this policy proved a failure ; and controls were re-imposed.

§ 5. 'CONDITION' OF A WIDE MARKET

The market for a commodity may be wide or narrow. The conditions which make the boundaries or extent of any market large, can be divided into two broad classes : (a) Conditions prevailing within the country ; and (b) Qualities of the commodity.

¹¹ Marshall, *Principles of Economics*, p. 330.

A. Conditions within the Country

Certain conditions prevailing within the country affect the extent of the market. Such conditions are (i) peace, security and honesty; (ii) means of transport and communication; (iii) currency and banking systems; and (iv) methods of business.

(i) *Peace, Security and Honesty.* Sellers will be willing to send their goods to distant places only if they are sure that they will not be stolen away by thieves or otherwise pilfered in transit; that their monetary claims will be duly satisfied; and if not, the court will help them to realise their dues. Peace, security and honesty are thus absolutely essential for a wide market. Modern markets would not possibly have been so extensive as they are today but for the maintenance of law and order, and of a high standard of business morality in the various countries of the world.

(ii) *Efficient Means of Transport and Communication.* Efficient means of transport, like good roads, railways, steamships and air transport, make the carriage of goods over long distances easy, cheap and quick, and widen markets. Similarly, efficient means of communication like the post, telegraph, telephone and wireless systems, enable traders of one place to get information about the business conditions prevailing at other places very quickly; so that they sell goods to, or purchase them from, the latter as the profit conditions warrant. If the means of transport and communication are so poor that the carriage of goods or news involves much cost, time and difficulty, markets must naturally be narrow, for then it would not be possible for distantly situated merchants to compete with one another. Means of transport and communication are very potent instruments in widening the area of a market. An important cause of the narrowness of markets in olden days was the lack of efficient means of transport and communication. That was the reason why the price ruling at one place was at times greatly different from the price ruling at a neighbouring place. During the war times, prices of food-stuffs were found to vary widely from place to place because of a shortage of transport facilities. But generally speaking, the great development of these means in modern time has considerably widened markets so much so that many of them tend to become international.

(iii) *Efficient Currency and Banking Systems.* Stable and good monetary and banking systems lead to wide markets. A businessman would be willing to purchase goods from or sell goods to another businessman of a distant place only if he is sure that the currency system of that place is stable. If the value of this currency fluctuates every now and then, his calculations might be upset. This would make business results uncertain and would discourage him from extending business connexions. A stable cur-

rency system would, on the other hand, assure him that his calculations will not be interfered with by any outside force and will encourage him to extend his business to distant places.

Similarly, an efficient banking system greatly facilitates the transfer of money from one place to another. Banks also provide facilities according to which goods are handed over to the buyer only when he pays the money to the bank. Banks also supply information about the financial standing and honesty of distant businessmen which is very valuable. All these facilities encourage businessmen to increase the extent of markets.

(iv) *Scientific Methods of Business.* The extent of the market for a commodity also depends on the methods of sale adopted by the businessmen. If they adopt modern and upto-date business methods, follow scientific principles of persuasive salesmanship and advertisement, and conduct their selling campaigns with vigour and push, the markets for their merchandise are sure to increase.

Peace, order and business honesty, efficient means of transport and communication, efficient currency and banking systems and scientific methods of business widen the extent of markets.

B. Qualities of the Commodity

The wideness of the market also depends upon the qualities of a commodity. The commodities possessing the following qualities usually have very wide markets :

(i) *Universality of Demand.* The commodities regularly demanded by the people of different countries of the globe, usually have very wide markets. Cotton, wheat and iron satisfy the wants that are universally felt and are quite urgent ; therefore, they have international markets. The market for furs, on the other hand, is very narrow because they are in demand in colder regions alone and are of little use in warm countries. *Dhotis* and caps do not have international markets as the demand for them is mostly confined to India.

(ii) *Suitability for Grading and Sampling.* Commodities which can be easily and exactly graded or represented by samples have, other things being equal, wide markets, for they can be conveniently advertised and ordered for. Cotton, wheat and other staples possess this quality ; they can be bought and sold by persons separated by long distances just on the basis of samples or grade ; the markets for them are consequently wide. The commodities which cannot be graded or represented by samples must be thoroughly examined in their entire mass ; this is a great obstacle in their sale to distant merchants.

(iii) *Portability.* Portable commodities have wide markets. Their value is considerable in proportion to their bulk ; consequently they

can bear long carriage. The market for common bricks is practically confined to the neighbourhood of the kilns in which they are made; they are so cheap and heavy that they cannot profitably be transported to distant places. On the other hand, the value of gold and diamonds, stock and shares, is so large that the cost of their transport is small in proportion to it. Hence they can be easily transported to distant places and can enjoy a wide market.

(iv) *Durability.* Perishable and delicate articles cannot enjoy very wide markets because they cannot be transported over long distances in a safe state. Fish and vegetables have local markets. But gold and cotton are very durable and, therefore, have world-wide markets. The introduction of 'cold storage', speedy trains and other such devices, however, tend to increase the markets even for perishable commodities.

(v) *Adequacy of Supply.* The supply of a commodity must be adequate to meet a large demand if it is to have a wide market. Only a very restricted market exists in curiosities and rare works of art, whose supply is extremely limited.

The commodities which are in universal demand, suitable for grading and sampling, portable, durable, and procurable in large quantities usually have wide markets.

TEST QUESTIONS

1. Explain and define market.
2. What do you mean by a perfect market? Discuss the Law of Indifference.
3. Give an account of the evolution of markets.
4. Distinguish between local, national and international markets.
5. What do you mean by time markets? What are their varieties.
6. Lay down the conditions necessary for a wide market.
7. In what sense is the term 'market' used in the following statements :
 - (a) The division of labour is limited by the extent of the market.
 - (b) I am going to market.
 - (c) We should build our Japanese market for cotton.
 - (d) There was no market for Nagpur oranges this year at Allahabad.
 - (e) There is a world market for gold.
8. When you go to purchase pencils or exercise books, do you find a perfect market of these commodities? Explain a perfect market.
9. Give a description of the hand-made articles of your locality and discuss whether the market for each of them is local, national or international.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. What are the conditions of the wide market for a commodity? What attributes should a commodity possess in order to have a wide market? (1949, 1943)
2. Define the term 'Market'. Explain the meaning of 'Perfect Market'. What is a Black Market? (1947)

3. 'A single competitive price is both the characteristic and the test of an economic market.' Explain this statement, and discuss the causes responsible for the extension of markets. (1945)

U. P., Int. Com.

4. What is a 'market'? What are the causes of the extension of markets for commodities? (1950)

5. What do you understand by 'black market'? Why does a commodity go to the black market? (1947)

Raj., Int. Arts

6. Describe the essentials of a market. Illustrate by reference to market for bullion and market for fish (1948).

7. Define the term 'market'. Explain the condition which a commodity must satisfy to have a wide market. Give Indian examples. (1942)

Raj., Int. Com.

8. Define market and show how price is fixed? (1948).

9. "A single competitive price is both the characteristic and the test of an economic market." Explain this statement and discuss causes responsible for the extension of market. (1946)

Patna, Inter. Arts

10. Explain why under competition there can be only one price of a commodity at the same time in the same market. (1949 Annual)

11. What is meant by market in Economics? What are the causes of increasing the area of markets in modern times? (1948 Annual)

Patna, Int. Com.

12. Write a note on Market. (1949 A)

13. What do you mean by standardisation. What are its advantages and disadvantages? (1948 S)

Banaras, Int. Arts.

14. What is meant by 'Market' in Economics? What are the factors which determine the size of the market? (1949)

Banaras, Int. Com.

15. Explain the chief characteristics of an economic market. What kind of commodities have a wide market and why? (1949)

16. What are the different kinds of market? Explain the factors which bring about extension of market. (1947)

Sagar, Inter. Arts

17. What is a market? What qualities should a commodity possess in order to command a wide market? (1950)

18. Define Market. What can you say regarding the extent of market for three of the following:

- a. Oranges,
- b. Fresh milk,
- c. Gold and Silver,
- d. Bricks,
- e. Cotton?

Give reasons for your answer. (1949 Supp.).

19. What is market ? What are the factors that extend the area of the market ? (1948)

Sagar, Inter. Com.

20. Define a 'market'. What are the causes of increasing the area of markets in modern times ? (1949)

Nagpur, Inter. Arts

21. Which commodities have a world-wide market ? Under what conditions the following commodities have a wide market ?

Oranges, books, raw cotton, glass bottles and medicines. (1949)

22. Define a market: Why is it that some commodities command a wide market while others have a limited market ? (1948)

23. What is the difference between a market in economics and a market as commonly understood ? State the relationship between (a) demand and price, and (b) supply and price. (1947)

Nagpur, Inter Com.

24. What is the difference between a 'market' in Economics and a 'market' as commonly understood. State the relationship between (a) demand and price and (b) supply and price. (1947)

25. Explain what do you understand by 'Market' ? On what factors does the extent of the market for a commodity depend ? (1946)

Panjab, Inter.

26. Distinguish between perfect and imperfect market. What are the conditions which help to make the market perfect ? (1949)

27. Explain the advantages and disadvantages of free competition. (1949)

Delhi Higher Secondary

28. What is a market ? Explain how market price is determined ? (1951)

29. What is a market ? What are the factors which determine the size of a market ? (1950)

30. Briefly describe the chief advantages of competition. When does competition lead to monopoly ? (1949)

CHAPTER 46

DEMAND AND SUPPLY

While the individual desire is fitful, the resultant of the desires of all the purchasers is relatively steady, just as, in Physics, the forces of the individual molecules of the atmosphere which bombard our bodies are variable and fitful, but the aggregate resultant atmospheric pressure a steady fifteen pound per square inch.—*Fisher*.

It was said in the middle of the last century that you could make a good economist of a parrot by teaching it to repeat the words "Supply and Demand." Indeed, these two words are always on the tongue of every economist. This is so because the Demand and Supply Formula is the core of the whole edifice of Economics. Things and services are sold for a price which is determined by the interaction of the forces of demand and supply. The Theory of Demand and Supply has been beautifully summed up as follows¹: "The *Supply* of a commodity is the quantity offered for sale. *Demand* is the quantity that will be bought at a certain price. The price tends to make Demand and Supply equal. The competition of sellers makes prices fall, while the competition of buyers raises them."

§ 1. DEMAND

Definition of Demand

A desire for anything, we must remember, is not the same thing as a demand for it. 'If wishes were horses, then beggars would ride!' By demand economists mean an *effective desire*, i.e., the desire which can be satisfied, by virtue of the possession of the means of its satisfaction. In other words, *desire* must be coupled with *the means to purchase the article desired*, in order to become demand. A poor man may like to possess a grand bungalow, an aeroplane and many other costly things; but as he is too poor to purchase them, his desire for them is not demand. But if he wins a Derby prize, he will get the wherewithal to purchase these things. Then his desire will become *effective* and will be called demand.

Besides possessing the means of acquiring the objects of desire, a man must also have the *willingness to part with the means* in exchange for them. A man may possess the means to purchase an article but he may not like to part with the means in order to possess it. A

¹ Cornah, *Simple Economics*, p, 14

miser may like to have a car for his son, but his attachment to money may prevent him from purchasing it.

Demand may, then, be defined as the (i) desire to possess a thing, coupled with (ii) the means of purchasing it, and (iii) the willingness to use those means for the purpose. In order that there may be a demand for a thing, there must be not only a *desire* for it, but also the *willingness* and the *ability* to offer for it some money or things or to undergo some exertion.

Demand and Price

Demand is always made *by* a buyer, or would-be buyer, for a certain article. The demand for a commodity is closely related to its price. The willingness of people to buy a thing depends, to a considerable extent, upon what they have to pay for it. Therefore, there is no such thing as demand apart from price.² Because of this intimate relationship between demand and price, demand is also defined as *the quantity of a commodity which a person is willing to buy at a certain price*.³ Thus when it is said that the demand for wheat has increased, it means that more wheat is now demanded at a given price. This definition is very widely popular amongst economists.

Demand Price

By demand price is meant the price at which a purchaser is willing to purchase a certain quantity of a commodity. If you are willing to buy five fountain pens of Rs. 2 each, your demand price is Rs. 2 per fountain pen.

The Law of Demand

The law of diminishing utility tells us that as the stock of a thing increases, its marginal utility, other things remaining the same, decreases. We also know that the price which a person is willing to offer for a commodity is equal to its marginal utility to him. Therefore, as the quantity offered for sale increases and its marginal utility decreases, the price which a buyer is willing to pay for its successive units goes down. In the words of Marshall, "The greater the amount to be sold, the smaller must be the price of which it is offered in order that it may find purchaser; or, in other words, *the amount demanded increases with a fall in price, and diminishes with a rise in price*."⁴ Demand and price are as such indirectly related. This is called the *Law of Demand*. Demand and price are like the two ends of a see-

² Penson, *op. cit.*, Part I, p. 107.

³ J. S. Mill says that we must mean by the word demand, the quantity demanded and remember that this is not a fixed quantity, but in general varies according to the value. See his *Principles of Political Economy*. III. ii. 4

⁴ Marshall, *Principles of Economics*, p. 99.

saw ; when the one end goes down, the other one goes up ; and *vice versa*. The diagram given below illustrates the point quite clearly.

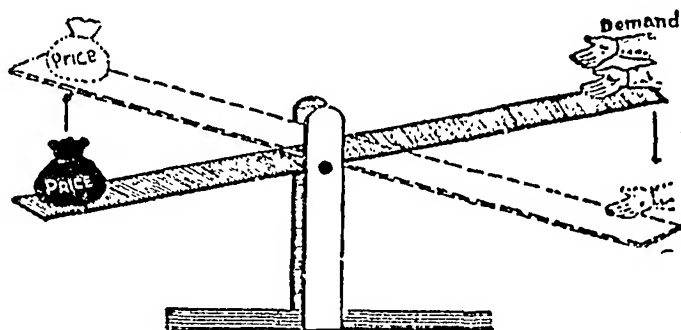


Fig. 45.—Illustrating Law of Demand.

It should be clearly understood that the law of demand is quite silent regarding *the extent of change* in demand as a result of a certain change in price. If the price changes by 10%, the demand may change by 5% only or by 95%. The law of demand is silent on the point. It simply affirms that a rise in price would *tend* to reduce demand and a fall in price would *tend* to increase demand.

Demand Schedule

To obtain complete knowledge of a person's demand for anything at a particular place and time, we have to ascertain how much of it he would be willing to purchase at each of the prices at which it is likely to be offered. A list or schedule showing the amount of the commodity which a person will demand at various prices may be prepared. Such a list or schedule is called *Demand Schedule*. A demand schedule may be defined as *a list showing the relationship between different quantities of a commodity and their respective demand prices at a particular place and time*.

Individual and Market Demand Schedule. A demand Schedule may refer to the demand of an individual or to that of a market. In the latter case, it refers to collective demand of all the individuals constituting the market. This is arrived at by adding the demand of all the individuals constituting the market. The former is known as an *Individual Demand Schedule* and the latter as *Market Demand Schedule*.

The following is the Demand Schedule of a student for pencils at Allahabad on June 1, 1952, at 8 A. M.

Demand Schedule

PRICE	DEMAND
6 pice	3
5 pice	4
4 pice	6
3 pice	9
2 pice	12
1 pice	18

This demand schedule agrees with the law of demand. As price falls demand increases. When the price is 6 pice per pencil, only 3 pencils are demanded. But when the price falls to 4 pice per pencil, 6 pencils are demanded; and at 1 pice per pencil, 18 pencils are in demand.

Demand schedules are of great use in economics. They greatly aid in the understanding of the law of demand and exhibit the elasticity of demand very vividly.

Demand Curve

The demand schedule can be represented on a graph paper. Such a graphic representation of a demand schedule is called the *Demand Curve*. It reports the number of units that would be bought at different prices. The demand schedule given above is diagrammatically represented below :

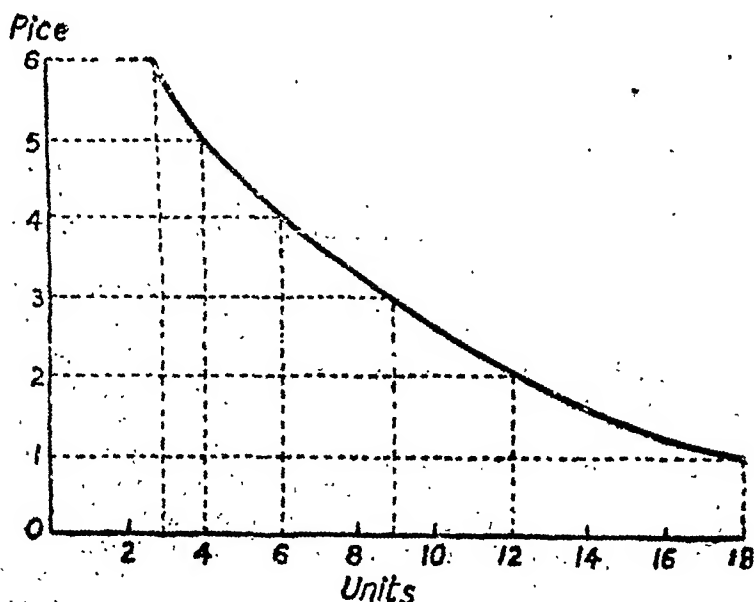


Fig. 46—Showing the Demand Curve.

Units of pencil have been measured along OX axis and price is shown along OY axis. Points have been plotted by dotted lines.

By joining the points, we get the demand curve drawn in thick black ink.

§ 2. ELASTICITY OF DEMAND

Meaning of Elasticity of Demand

The demand for a commodity diminishes or increases according as price increases or decreases, other things remaining the same. This variation in demand, in response to a variation in price, may be slow or rapid. *The variation in demand in response to variation in price is called the Elasticity of Demand.*

By the common experience of all merchants, when the prices of certain goods are lowered even slightly, there is an appreciable increase in the quantity demanded; and when the prices of these commodities go up slightly, there is a marked decrease in the demand. In the case of other goods, like salt, the amount demanded is little affected by the fluctuation in price. "The elasticity (or responsiveness) of demand.....is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price." (*Marshall*)

Degrees of Elasticity of Demand

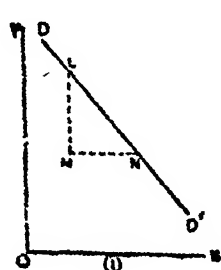
The demand for an article may be (i) elastic, (ii) highly elastic, (iii) perfectly elastic, (iv) moderately elastic or inelastic, or (v) perfectly inelastic. These are the five degrees of the elasticity of demand.

(i) *Elastic.* There are some articles of comfort whose demand varies in *exact proportion* to the variations in price. If their price becomes double, the demand for them falls by half; and if their price falls by half, the demand for them becomes double. Demand in such cases is said to be elastic. The demand curve of this type is semi-horizontal or semi-vertical as is shown in fig. 40 (1) appearing on the next page.

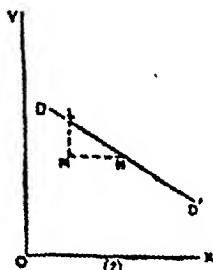
(ii) *Highly Elastic.* Take the case of a good silk shirting cloth, which is being sold at Rs. 4 per yard. If the price suddenly drops down to Rs. 3 per yard, you may like to purchase it for two shirts rather than for one only. In this case, the amount demanded increases considerably for a small fall in price; price falls by 25 per cent but the demand rises by 50 per cent; in other words, the rise in demand is more than proportionate to the rise in price. Similarly, if the price of the cloth rises by a small amount, the demand will fall considerably, *i.e.*, more than proportionately. *When the variation in demand is more than proportionate to the variation in price, the demand is said to be highly elastic.* The demand for articles of luxury is of this nature. The demand curve of this type is horizontal; it tends to be parallel to the base. See fig. 47 (2) on the next page.

(iii) *Perfectly Elastic.* Cases are imaginable in which the demand for an article is perfectly elastic, *i.e.*, the demand varies considerably without any variation in price. The price may remain the same, but the demand may still increase tremendously or fall considerably. Such cases are only hypothetical and not real. The demand curve in this case would be perfectly parallel to the base line. See fig. 47 (3) given below.

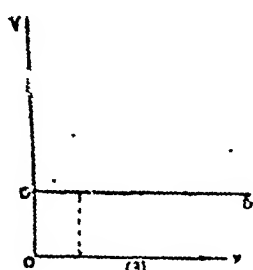
(iv) *Moderately Elastic or Inelastic.* Take, again, the case of salt. Salt is indispensable for us and our demand for it remains, more or less, the same irrespective of fluctuations in its price. Suppose its price today is one anna per seer. If tomorrow the price rises by two annas per seer, our demand for it will probably not decrease appreciably. In other words, the fall in demand is less than proportionate to the rise in price. Similarly, the fall in price will cause less than proportionate rise in demand. The demand in this case has hardly any elasticity; it is, in fact, said to be *moderately elastic or inelastic*. When the variation in demand is less than proportionate to a variation in price, the demand is said to be *moderately elastic or inelastic*. The demand for articles of necessity is of this nature. The demand curve in such cases tends to be vertical. See Fig. 47 (4) below.



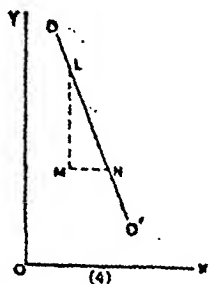
Elastic Demand Curve



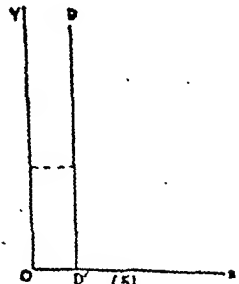
Highly Elastic Demand Curve



Perfectly Elastic Demand Curve



Moderately elastic or Inelastic Demand Curve



Perfectly Inelastic Demand Curve

Fig. 47. Diagrams illustrating elasticity of demand.

(v) *Perfectly Inelastic.* The demand is said to be perfectly inelastic when there is absolutely no change in demand as a result of variation in price. The demand remains the same irrespective of the price. This is, like perfectly elastic demand, a purely imaginary case. This curve is perfectly vertical—it is exactly parallel to the OY axis. See Fig. 40 (5) on the last page.

In the above diagrams, OX axis measures quantity of commodities and OY axis the price thereof. LM dotted line shows the change in price and MN dotted line, the change in demand as a consequence. The reader should observe that the greater the tendency towards elasticity, the more horizontal the demand curve; and, conversely, the greater the tendency towards inelasticity, the more vertical the demand curve.

The following diagram further illustrates the various degrees of the elasticity of demand :—

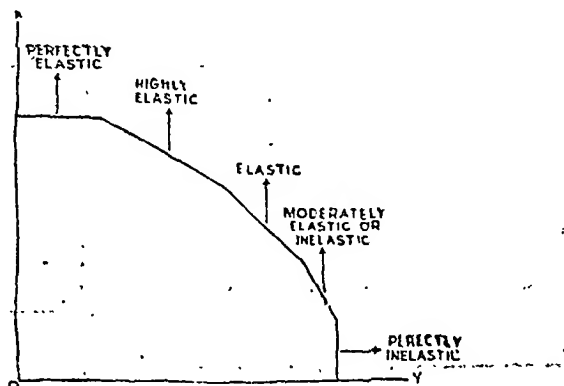


Fig. 48.—Another diagram illustrating the various degrees of the elasticity of demand.

The Measure of the Elasticity of Demand

Economists measure the elasticity of demand (e) by assuming one (1) as the unit of elasticity. The elasticity of demand for a commodity is said to be one when demand changes proportionately with a change in price. Thus if price becomes double, the demand becomes half; if price falls by 50 per cent, the demand rises by the same percentage. Here the total amount spent on the article (price per unit \times the number of units purchased) always remains the same irrespective of price fluctuations. This is the case with articles of comfort. The elasticity of demand for such articles is expressed symbolically as $e = 1$. When elasticity of demand is equal to one, the demand is said to be *elastic*.

The elasticity of demand for a commodity is said to be more than one when the change in demand is more than proportionate to the change in price. Thus if price falls by 10 per cent, the demand may rise by 20 per cent. In this case the total amount spent on the commodity diminishes if the price rises, and increases if the price falls. This is the case with articles of luxury. The elasticity of demand for such articles is expressed symbolically as $e > 1$. When the elasticity of demand is greater than one, the demand is said to be *highly elastic*.

The elasticity of demand for a commodity is said to be less than one when the change in demand is less than proportionate to the change in price. Thus if price falls by 20 per cent, the demand may rise only by 2 per cent. In this case, the total amount spent on the commodity increases when price rises, and decreases when price falls. This is the case with necessities. The elasticity of demand for such articles is expressed symbolically as $e < 1$. When the elasticity of demand is less than one, the demand is said to be *inelastic*.

The following chart tabulates the above discussion in a brief form :

Degree of change in demand	Symbol of elasticity	Articles falling under each	Degree of elasticity
Proportionate ...	$e = 1$	Articles of comfort	Elasticity
More than proportionate	$e > 1$	Articles of luxury	High elasticity
Less than proportionate	$e < 1$	Articles of necessity	Moderate elasticity or inelasticity

Chart Explaining Elasticity of Demand.

An Elastic Demand Curve

The demand for cars is elastic.⁵ The following is the Demand Schedule for cars :

⁵ The elasticity of demand for cars is fairly small for an individual. However cheap cars may become, nobody will renew his car or cars more than once a year. But it is fairly large for the public as a whole. Every time the price falls, a new stratum of buyers comes up to purchase cars.

Demand Schedule (for Cars)

Price Rs.	No. Demanded
10,000	1,000
8,000	3,000
5,000	8,000
4,000	11,000

The resulting curve (see below) gives the typical demand curve for such articles. The curve tends to be horizontal.

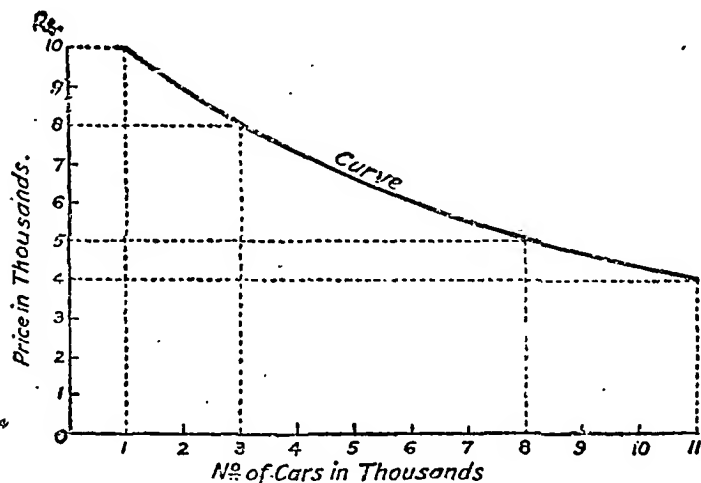


Fig. 49.—Showing Elasticity of Demand for Cars.

In this diagram, units of cars have been measured along OX axis and price along OY axis. Points have been plotted as shown by dotted lines. On joining the points thus plotted, we get the demand curve. The reader should carefully mark the horizontal nature of the curve.

Below is given the Demand Schedule for salt. The demand for salt, as said above, is inelastic.

Demand Schedule (for Salt)

Price (Rs. per maund)	Quantity Demanded (Maunds)
6	100
4	110
3	115
2	120

The resulting curve (Fig. 50) gives the demand curve for salt. The curve tends to be vertical. The reader should mark the vertical nature of the curve. It is to be noted that the elastic demand curve tends to be horizontal, while the inelastic demand curve tends to be vertical.

Conditions Governing Variations in Elasticity

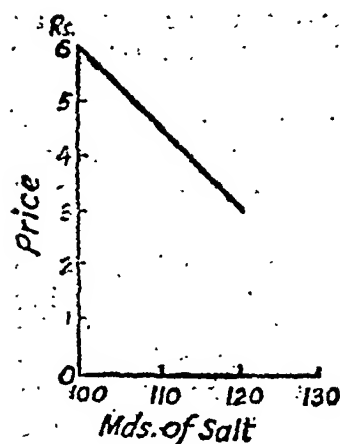


Fig. 50. Showing inelasticity of Demand for salt.

Elasticity of demand is an extremely variable factor. The elasticity of demand for certain articles like fountain pens and motor cars is more variable than that for certain other articles like salt and match boxes. Again, the elasticity of demand for the same article varies according to the economic status of a person. For instance, the demand for motor cars is elastic in the case of a rich man and inelastic in the case of a poor man.

The elasticity of demand for neckties is great for a college student but it is hardly any for a person like Mahatma Gandhi. Again, the elasticity of demand for a commodity may be high at certain prices and moderate at certain other prices.

The following are the chief general conditions which determine elasticity of demand for any commodity :

(1) *The Demand for Luxuries is Highly Elastic, That for Comforts Elastic, and That for Necessaries, Inelastic.* The reason for it is that certain things, which are essential to life, will be obtained at any price ; whereas articles of luxury can be more easily dispensed with ; while articles of comfort rank midway between the two.

The demand for necessities is habitually inelastic. The want for necessities for existence is so pressing and fixed that a man ordinarily demands, more or less, the same quantity irrespective of changes in price. The demand for conventional necessities is also of similar nature. On the death of an elderly member of his family a Hindu is expected to give a feast (*Terahvi*) irrespective of the price of the victuals. The demand for necessities for efficiency is not always and everywhere equally inelastic. Where standard of living is high they become as insistent as necessities ; but if the standard of living is low, they lose their pressure and are allowed to go unsatisfied.

The demand for articles of luxury is highly elastic. Such articles are not absolutely indispensable so that their consumption

is drastically curtailed if prices rise. Their consumption is also capable of enormous extension if prices fall. As such, if their prices rise people begin to demand them in less than proportionate quantities; and if their prices go down, their demand increases more than proportionately.

The articles of comfort fall midway between articles of necessity and of luxury; and the demand for them is *elastic* in the sense that the variation in the demand for them is proportionate to a change in price.

(2) *Influence of Variety of Uses.* Generally speaking, those things have the most elastic demand which are capable of being put to many different uses. For if their prices rise, they can be withdrawn from some uses; and if they fall, they may be devoted to some new uses. For instance, if water, during a drought, is supplied at a very high rate by metre, people may use it economically and scantily for bathing and washing purposes. But if it is supplied at a fixed annual charge, its use for every purpose is likely to be carried to the full satiety limit.

(3) *The Effect of Substitutes.* The demand for a commodity, which has many substitutes, is more elastic than the demand for a commodity which has no substitutes. For, in the former case, if one of the commodities becomes cheaper than the others, the latter will lose some of their consumers in favour of the former. The expansion of demand for the cheaper commodity will be correspondingly greater than if its only source of increased demand had been the enhanced consumption of the original buyers. Thus coffee is a substitute for tea. If the price of coffee rises appreciably and people take to tea, demand for coffee will fall substantially and that for tea rise considerably. However, if no substitutes are available, as is the case with salt, the demand will not fall considerably as a result of a rise in price.

(4) *Influence of Sensibility and Acquired Tastes and Distastes.* The demand for things also depends upon sensibility: some people care little for refined flavour in their tea provided they can get it as much as they like, while others crave for a high quality but are easily satiated. Constant use also gives rise to acquired tastes and distastes. A man who has become used to writing on fine, glazed paper will continue to demand it irrespective of a rise in its price. Similarly a man, who does not like coffee, will not demand it howsoever low its price may go.

(5) *Influence of Price.* Elasticity of demand is small at very high and very low price; it is great at medium prices. If the price of a commodity is very high, an ordinary rise or fall in price will not affect the demand for it because then it is bought by the rich alone.

who will buy it at any price. If the price is very low, everyone can buy who wishes to buy and an additional fall in price does not make any difference in the amount demanded. But at medium price it is consumed by the rich and the upper middle class; so that if the price rises a little, the latter will give up its consumption and the demand will shrink. On the other hand, if the price falls a little, lower middle class people, and even the poor, might begin to consume it and the demand may rise. Hence the elasticity is great at medium prices.

The Case of One Class of Society. The above statement refers to the demand of the society as a whole. If we consider the demand of a class of people only, we will find that "the elasticity of demand is great for high prices; and great, or at least considerable, for medium prices; but it declines as the price falls; and gradually fades away if the fall goes so far that satiety level is reached."⁶ When the price of a thing is very high relatively to any class, any considerable fall in its price causes a great increase in the demand for it. When the price drops to the middle level, those members of the class who occupy lower financial position begin to make some demand, while the old consumers also increase their demand. The demand rises though not very briskly. Further fall in the price makes the demand increase only half-heartedly since most of it has already been satisfied. At the satiety level demand becomes thoroughly inelastic.

(6) *Proportion of Income Spent.* Finally, the demand is generally more elastic for commodities which take up a large proportion of one's income than for those which only take up a smaller one, simply because one hardly thinks about the very small items. The demand for salt is very inelastic because so little is spent on it as also because there is no substitute for it. Similarly, the demand for sewing cotton is inelastic because the cost of sewing cotton is so small a part of the cost of making clothes that nobody worries much about it.

§ 3. SUPPLY

Meaning of Supply

Supply is the quantity of a commodity that a seller offers for sale at certain price. We cannot think of supply apart from price. Supply depends upon price. High prices increase the supply and low prices reduce it. Hence there is no such thing as supply apart from price.

Just as we distinguished between desire and demand, so we must also distinguish between stock and supply. The stock is the quantity of goods that *could* be sold; the supply is the quantity

⁶Marshall, *Principles of Economics*, p. 103.

that *would* be sold at a given price.⁷ If in a market at a particular day and at a particular time 2,000 maunds of wheat are offered for sale at Rs. 4 per maund, then 2,000 maunds is the supply of wheat at that price. But there might be a stock of 10,000 maunds of wheat at that time, out of which only 2,000 maunds are being offered for sale.

Supply Price

By supply price is meant the price at which a certain quantity of a commodity is offered for sale by its suppliers or sellers.⁸

The Law of Supply

Supply varies with a change in price. It increases with a rise in price and decreases with a fall in it. Thus both supply and price move together. This is known as the *Law of Supply*.

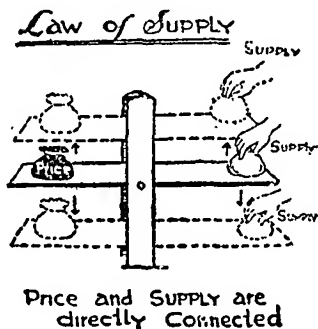
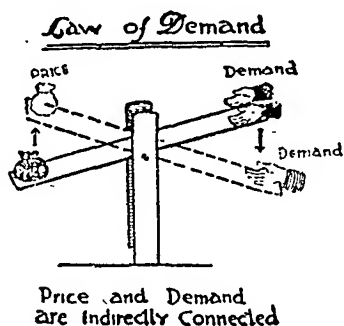


Fig. 51—Comparing the Laws of Demand and Supply.

The reason for the operation of the law is that if price increases, even those inefficient producers whose cost of production is high find it profitable to put their produce on the market while the efficient ones increase their supply. And as the price goes on increasing, the output offered for sale keeps pace with it. On the other hand, if the price decreases, some producers whose cost of production is greater than the price, withhold their supply from the market and therefore the supply decreases. The above Fig. 44 compares the laws of demand and supply; demand and price move inversely while supply and price move together.

⁷Penson, *op. cit.*, p. 110.

⁸Supply is based on the unwillingness of men to undergo certain discommodities which are necessary for production, namely, to labour or to sacrifice themselves.....A certain price must be offered to induce men to make these efforts or sacrifices.....The amount produced depends on the price offered.....It is called Supply Price.—John A. Todd, *Political Economy for Egyptian Students*, p. 35.

Supply Schedule

A Supply Schedule is a list or a record showing the relationship between various prices and the supply of a particular commodity in a particular market on a particular day and at a particular time. The following is the supply schedule of a grain dealer for wheat in Muthiganj (Allahabad) on the 1st June, 1940 at 10 A. M. :

PRICE	SUPPLY
Rs.	Mds.
6	10,000
5	9,000
4	8,000
3	6,000
2	4,000
1	1,600

The supply schedule can be represented diagrammatically. The curve thus obtained is called the supply curve. The following supply curve is the diagrammatic representation of the supply schedule of grain given above. It is obtained by measuring maunds of wheat along OX axis and price along OY axis ; plotting the points as shown by dotted lines ; and by joining the points thus plotted.

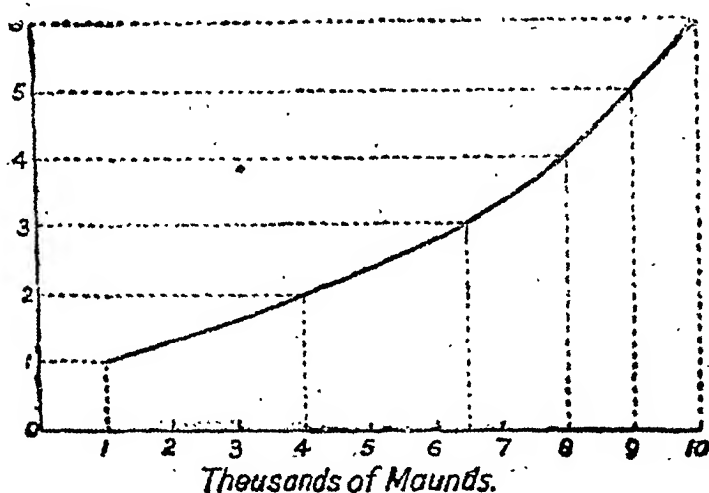


Fig. 52—Showing the Supply Curve.

The reader should compare this curve with the demand curve shown on page 421 *ante*.

Elasticity of Supply

The term *elasticity of supply* is not often used in Economics. But it is a useful concept. The supply of an article may be said to be *elastic* when the supply varies just proportionate to the variation in price. It may be said to be *highly elastic* when variation in supply is more than proportionate to the variation in price. It may be called *inelastic* when the change in supply is less than proportionate to a change in price.

Supply Curve and Laws of Returns

The demand curve tends to fall from right-hand side to left-hand side. It indicates that as the price of an article increases, the demand for the commodity falls. This is clear from the adjoining diagram. This is because of the operation of the Law of Diminishing Marginal Utility; and this applies to every commodity. As such, this is bound to be the shape of the demand curve of every commodity.

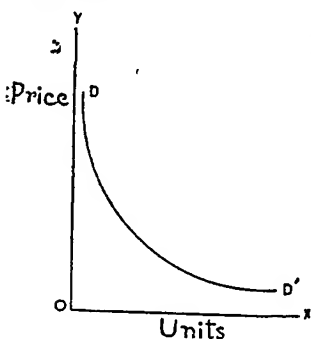


Fig. 53.

But the supply curve of every commodity does not necessarily have the same shape. The shape of the supply curve of an article depends upon the fact as to whether its production obeys the law of increasing, constant or diminishing returns. If the production of commodity is subject to the law of diminishing returns (or increasing cost), the greater the production, the higher the cost: and the supply curve (SS') will go on ascending towards the right-hand side, as is clear from Fig. 54 given below.

Contrary to this, if the production is subject to the law of increasing returns (or diminishing cost), the cost will decline as production increases. The supply curve (SS') will go on descending as is clear from Fig. 55 given below. If, however, the production obeys the law of constant returns (or constant cost), the cost will remain uniform whatever be the amount that is produced. Hence supply curve (SS') will run parallel to OX -axis. This is clear from Fig. 56.

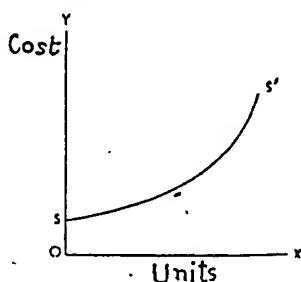


Fig. 54.

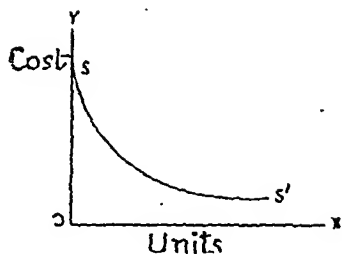


Fig. 55.

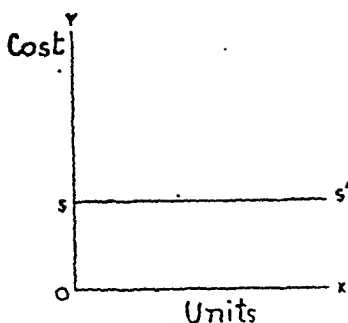


Fig. 56.

TEST QUESTIONS

1. Explain as clearly as you can the meaning of demand and frame its suitable definition.
2. Explain, formulate and illustrate the law of demand.
3. Write short notes on : demand price ; demand schedule ; and demand curve.
4. What is meant by elasticity of demand ? Explain elasticity, high elasticity and inelasticity.
5. Explain the conditions governing the elasticity of demand.
6. What do you mean by supply ? Define supply schedule and supply curve.
7. Explain and illustrate the law of supply.
8. 'The demand for hats has increased.' What two interpretations can be given to this statement ? Define demand.
9. Should you expect the demand for the following inelastic or elastic or highly elastic : automobiles ; playing cards ; tennis balls ; ink ; hair cuts ; papers ; salt ; diamonds ; books.
10. Should you expect the demand for a commodity elastic or inelastic—
 - (a) if there are many available substitutes for it ?
 - (b) if there are many possible uses for it ?
 - (c) if its price places it beyond the reach of the masses ?
 - (d) if the desire for it is nearly satiated ?
11. "Supply and stock on hand mean the same thing" Do you agree. Does the supply of a commodity include what is possessed by consumers ? May the supply of a commodity exceed the total quantity in existence ?
12. What would be the relative effect upon demand for motor cars and rice if prices of both should fall proportionately ?
13. Why has the price of gold remained high in spite of the great increase in its supply ?

EXAMINATION QUESTIONS

U. P. Inter Arts

1. Explain the Law of Demand. How is value determined under perfect competition ? (1951)
2. Write a note on Demand and Supply Schedule. (1951)
3. Why is the demand for some goods elastic and for others inelastic ? What has been the effect of scarcity and high prices on the demand for goods in India during the present war ? Give examples. (I. A., 1945)

4. Define demand and supply and explain how they help in the determination of the price of a commodity. (I. A., 1942)

5. What do you understand by elasticity of demand? Explain why the demand for some commodities is more elastic than for others. (I. A., 1941)
U. P. Inter. Com.

6. What is meant by elasticity of demand? Why is the demand for some commodities more elastic than for others? Explain fully. (1950)
U. P. Inter. Ag.

7. Explain the meaning of Want and Demand. What is the effect of this difference on the value of an article? (1944)

8. Describe the conditions determining the elasticity and inelasticity of demand for a commodity. (1943)

U. P. Inter. Ag.

9. Explain the following :—

When the demand for commodity increases its price also rises. (1951)

10. Define and write notes on Demand Curve and Inelastic Demand. (1951)

11. Write a note on Elasticity of Demand. (1950)

Raj. Inter Arts

12. Explain Elasticity of Demand. How would you measure it? (1948)

13. If price falls demand increases but if demand increases, price again rises. It is difficult to see how price ever changes. Solve this difficulty. (1944)

14. Write a note on supply price. (1942)

Raj. Inter Com.

15. What is meant by elasticity of demand? Why is the demand for some commodities more elastic than for others? Explain fully. (1949)

16. Write a note on 'Elasticity of Demand'. (1948)

17. What do you understand by Elasticity of Demand. Explain why the demand for some commodities is more elastic than for others? (1946)

18. State the law of demand and point out the difference between individual demand and market demand. What are the limitations of the law of demand? (1944)

Patna, Inter. Arts

19. What are the immediate and ultimate effects of an increase in the demand for a commodity on its price? (1949S)

20. Explain why a fall in the price of commodity is followed by its increased sale. (1949A)

21. State and explain the law of Elasticity of Demand. Give examples and draw diagrams to illustrate your answer. (1948A)

22. What are the circumstances in which the demand for a commodity may increase even if the price rises? (1946A)

23. Explain the Law of Elasticity of Demand and give illustration of elastic and inelastic demand. (1946S)

Patna, Inter. Com.

24. What do you mean by 'Demand'. What is the relation of demand and value? (1949S)

25. State the circumstances under which the demand for a commodity will increase even if the price rises. (1949A)

26. What do you mean by Elasticity of Demand ? Distinguish between elastic and inelastic demand. Does elasticity of demand for a commodity vary according to variation in time and the classes of persons concerned ? (1948A)

27. The greater the demand, the higher the price ; and the higher the price the smaller the demand. Explain why this is so ? (1948A)

28. Write a note on Demand Schedule. (1948A)

Banaras, Int. Arts

29. State and explain the concept of Elasticity of Demand. Give examples to illustrate your answer. (1949)

30. Write note on demand and supply curve. (1949)

31. Distinguish between 'market price' and 'normal price'. How is price determined under conditions of free competition ? (1948)

Banaras Int. Com.

32. How is the price of a commodity determined under competition ? Why are prices of commodities high in India at present ? (1949)

33. What is meant by Elasticity of Demand ? What are the factors that govern it ? (1948)

34. Explain the Law of Elasticity of Demand. Discuss the condition under which demand is elastic. Draw diagrams. (1946)

Sagar, Int. Arts

35. What is Elasticity of Demand ? Give conditions which determine elasticity or inelasticity of demand for any commodity. (1950)

36. Write note on Inelastic Demand. (1949)

37. What do you understand by a rise in the demand for a commodity ? State carefully the Law of Demand and illustrate it by means of a diagram. (1949)

38. Explain the term "Elasticity of Demand". Why is the demand for some commodities more elastic than for others ? (1949 Sup.)

39. What is meant by elastic and inelastic demand. Why is the demand for some commodities more elastic than others. (1948)

Sagar Int. Com.

40. Write a note on Elasticity of Demand. (1949 supp)

41. State the law of Elasticity of Demand. Why is the demand for some commodities elastic ? (1949)

42. What is 'Demand'. State and explain the law of demand. What are its limitations ? (19489)

Nagpur, Inter. Arts

43. What is Demand ? Frame a market demand schedule and explain why demand changes as a consequence of change in price. Is this true under all conditions ? (1948)

44. Explain 'Elasticity of demand'. Why is the demand for some commodities more elastic than others ? (1948)

45. What is the difference between a market in Economics and a market as commonly understood. State the relationship between (a) demand and price and (b) Supply and price. (1947)

Nagpur, Int. Com.

46. What is the difference between market in Economics and 'market' as commonly understood. State the relationship between (a) Demand and price ; (b) supply and price. (1947)

47. Explain the relationship between Demand and Price, and between Supply and Price. (1947)

48. Write a short note on Demand and Utility. (1946)

49. Write a note on Elasticity of Demand. (1945)

Bombay, Int. Com.

50. How can we say that cost determines price ? (1949)

51. Write a note on 'Elasticity of Demand'. (1949)

Poona, Int. Com.

51. Define Demand. What is meant by Elasticity of Demand ? What are the factors that determine the Elasticity of Demand ? (1949)

Travancore, Int.

53. The following example was given by a candidate in illustration of the law of demand :—

Price of oranges per 100	No. of oranges demanded
Rs 10	1,000
Rs 9	900
Rs 8	800
Rs 7	700
Rs 6	600

Is the above example correct ? If not, suitably change it and state your reason. (1943)

Panjab, Inter.

54. Draw the demand curve and explain the truth it is intended to illustrate. (1951)

55. Explain elasticity of demand. (1950, 1949)

56. What are the factors on which changes in demand depend ? What is the difference between effective demand ? (1949)

57. Why and when is demand (a) elastic, (b) inelastic ? Does supply also show elasticity ? (1949)

Delhi, Higher Secondary

58. Explain the law of demand. Show clearly the effects of changes in demand. (1951)

59. What do you understand by elasticity of demand ? Distinguish extension of demand from increase of demand. (1950)

60. What is demand ? Can you draw a market demand curve for sweets during the Dewali festival ? (1949)

61. Write a note on elasticity of demand. (1950)

THEORY OF VALUE

A man is likely to be a better economist if he trusts to his common sense and practical instincts, than if he professes to study the theory of value and is resolved to find it easy.—*Marshall*.

A very important part of Economics is the study of the way in which value, or price, is determined. How is it that a commodity sells for a particular price, neither for more, nor for less? How does the adjustment between the demand and supply take place? All such problems relate themselves to the theory of value.

§ 1. THE THEORY OF VALUE

The theory of value (or price) is, in fact, the pivot on which the Science of Economics rests. Economics studies human activities in relation to wealth, and wealth consists of those articles which possess value; so the theory of value is of prime importance to Economics.

The theory of value seeks to explain the following things:

1. Why does the purchaser pay a price for an article?
2. Why does the seller demand a price for his commodity?
3. How is price determined?

We shall deal with each of these points one by one.

Why is Price Paid?

A person is prepared to pay a price for a commodity because it satisfies his want or wants. And the more urgent is the want it satisfies, the higher is the price he is prepared to pay for it. If you are extremely hungry you may offer Rs. 10 or even Rs. 100 for a loaf of bread rather than go without it. But after your hunger is appeased and the intensity of your present want reduced to minimum, you may not pay for it even 2 as. It follows, therefore, that the price that a person is willing to pay for the first unit of a commodity is considerable, because it satisfies his want at its most intense stage. For every successive unit the amount that he is prepared to pay goes on diminishing. And if he continues his purchases, a point will, sooner or later, come when the money that he has to pay for the next unit of a commodity is equal to its utility to him. He stops his purchases at this point. The price paid for the last unit measures

the marginal utility. Since all the units purchased by him are similar, he will pay the same price for each of them. It follows, therefore, that the price per unit that a buyer will be willing to pay is equal to the marginal utility. The marginal utility of the commodity determines the maximum price that he can pay : he may pay less, but not more than that.

Why is Price Charged ?

A seller charges a price for a commodity because he incurs certain expenses in producing or acquiring it. He will not obviously sell the commodity at a price less than the expenses of production. It is the minimum price he will ordinarily accept : he may charge nothing in addition to it, but he will not ordinarily be satisfied with anything less than that.

Fixation of Price

Thus we see that the buyer has a maximum, which is determined by the marginal utility of the commodity. He is not prepared to pay a higher price than this ; and of course tries to pay as less as possible. As against this, the seller has a minimum, which is determined by expenses of production. He is not prepared to accept a lower price than this, and he tries to charge as high a price as possible. The actual price is fixed somewhere in between these minimum and maximum limits according to the relative influence of demand and supply. Where the buyer gets an upper hand, either because his demand is not urgent or because he is comparatively skilful in bargaining, the price tends to be equal to expenses of production. But where the seller gets an upper hand, either because his desire to sell the goods is not urgent or because he is comparatively skilful in bargaining, the price tends to be equal to marginal utility. The actual price at which business is done is thus determined by the forces of demand and supply and is the one at which the demand is equal to the supply. This is fully illustrated in the following pages. This adjustment of demand and supply is known as *equilibrium* and the price is known as *equilibrium price*.

The above is the theory of value. It may be summed up as below : *Value is determined in between the marginal utility and expenses of production according to the relative forces of demand and supply and is the one at which the supply of the commodity is equal to the demand therefore :* In the short period, demand plays a more important role ; and in the long period, supply plays a more important part in the determination of price, as will be explained later.

Real and Money Cost of Production

In the present discussion, we shall have to make frequent use of the terms *real cost* and *money cost* or *expenses of production*. It is, therefore, necessary to distinguish between these two terms.

Real cost. Production involves efforts and sacrifices. The efforts and sacrifices involved in producing a commodity constitute its *Real Cost of Production*. Marshall says, "The exertion of all the different kinds of labour that are directly or indirectly involved in making it, together with the abstinence or rather the waiting required for saving the capital used in making it—all these efforts and sacrifices together will be called the real cost of production of the commodity."¹

Money Cost or Cost. Efforts and sacrifices, however, cannot be easily measured in themselves. But they can be measured in terms of money for which they are purchased. The amount of money spent in producing a commodity is called its *Money Cost of Production* or *Cost Price or Cost or Expenses of Production*. In the words of Marshall, "the sums of money that have to be paid for these efforts and sacrifices will be called either its money cost of production, or for shortness, its expenses of production: they are the prices which have to be paid in order call forth an adequate supply of the efforts and waitings that are required for making it, or, in other words, they are its supply price."² Cost usually refers to money cost.

Time Element in the Theory of Value

Time element is of profound significance in the theory of value and modifies the application of the general theory to the specific conditions. The theory of value or price as dealt with above, is very general. Its application varies in certain respects according to the time involved in the determination of the price. Two specific cases are distinguishable from this point of view:

(1) *Short Period or Market Price.* It is the price determined in short period. *Short period is the period in which the supply of a commodity cannot be fully adjusted to the demand for it.* The actual period which may be called short, depends upon the nature of each commodity.

1 Marshall, *Principles of Economics*, pp. 338-339.

2 *Ibid*, page 339. In many text-books, cost of production and expenses of production are often used as synonyms. Marshall let fall a hint of caution on this point. Mill and some other economists, he says, have followed the practice of ordinary life in using the term, "cost of production in two senses, sometimes to signify the difficulty of producing a thing and sometimes to express the outlay of money that has to be incurred in order to induce people to overcome this difficulty and produce it. But by passing from one use of the term to the other without giving explicit warning, they have led to many misunderstandings and much barren controversy."—Marshall, *Economics of Industry*, pp. 195 n.

(2) *Long Period or Normal Price.* It is the price determined in long period. *Long period is the period in which the supply of a commodity can be adjusted to the demand for it.* The actual period which may be called long, depends upon the nature of each commodity.

Price in short and long periods is determined by the relative forces of demand and supply; *but in short period, demand plays a decisive part while in long period supply is the decisive factor.*

§ 2. SHORT PERIOD OR MARKET PRICE

We shall now describe how the price of a commodity is determined in short period, say, on any particular day in a market. It is known as the *short period or market price.*

Equilibrium in Short Period

We take the example of a wheat market. Let us assume, for the sake of simplicity, that all the wheat in the market is of the same quality. The quantity which each seller would be willing to sell at any particular price will depend upon his own need for money and by his estimate of the future and present conditions of the wheat markets. There are some prices which no seller would accept; some which no one would refuse. There are other intermediate prices which will be acceptable to some and not to others. At some prices some would offer a particular quantity for sale but may offer more if price goes up. Let us suppose that when the price of wheat is Rs. 2 per maund, 500 maunds are offered for sale. If price rises to Rs. 2-8-0 per maund, another 200 maunds will be offered; while the holders of another 200 maunds would be tempted to sell only at Rs. 3 per maund.

Again, let us suppose that if the price is Rs. 3 per maund, only 600 maunds would be purchased; if it is Rs. 2-8-0 per maund, another 100 maunds will be purchased; and that at Rs. 2 per maund, yet another 250 maunds will be bought.

These facts may be put in a table in the following way :—

At the price	Holder's will be willing to sell Maunds	Buyers will be willing to purchase Maunds
Rs. as. p.		
3 0 0	900	600
2 8 0	700	700
2 0 0	500	950

Now, suppose the price at any particular time is below Rs. 2-8-0 per maund. At this price even those sellers who would sell at that price rather than leave the market, would argue that at that price, the demand would be more than the supply; so they will wait and by waiting help to bring the price up.

If the price rises above Rs. 2-8-0 per maund, buyers will argue that the supply will be much greater than the demand at that price; therefore, even those of them who would rather pay that price than go unserved, wait; and by waiting help to bring the price down.

So the price will be tossed hither and thither like a shuttlecock, as one side or the other gets the better in the "higgling and bargaining" of the market.³ But *ultimately business will be done at Rs. 2-8-0 per maund, at which price the demand and supply are equal*; for, as we have seen, business cannot be done either at a higher or a lower price than that.

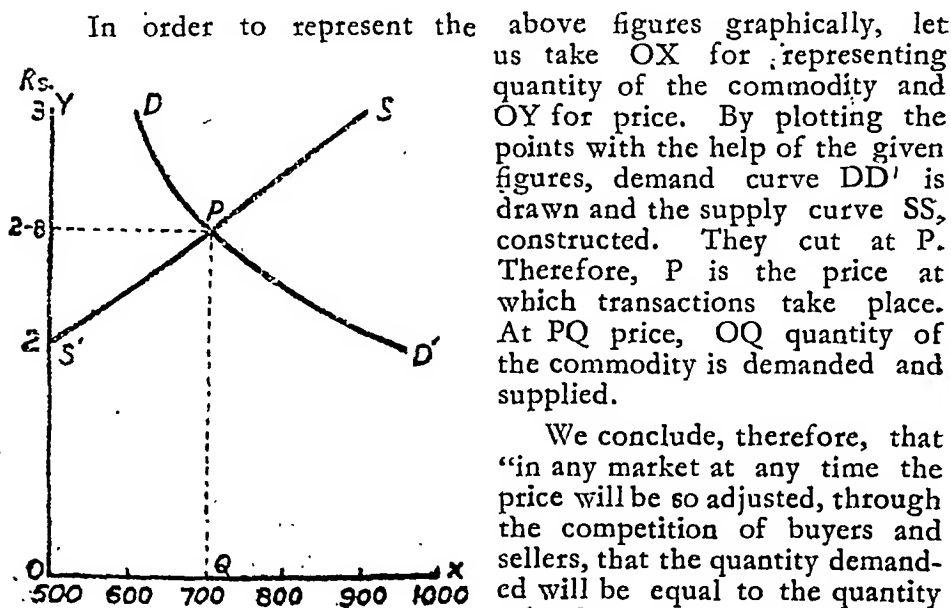


Fig. 57—Showing the fixation of price. This is called the "temporary equilibrium price" (Marshall) or the "equation price" (Mill).

Relative Strength of Demand and Supply in Market Price

Price, as we know, is determined by the relative strength of

³Marshall, *Economics of Industry*.

⁴Nicholson, *Elements of Political Economy*, p. 225.

demand and supply somewhere between the marginal utility and cost of production. But the question is: Which of these two forces exerts a more decisive influence in the determination of price in short period?

In short period the supply is fixed. For instance, on a particular day at a particular time the supply of fish in the fish market is fixed, and cannot change in response to a change in price. But there is no such fixity with regard to the demand for fish: demand may increase or decrease. In the determination of the market price, the supply is a fixed and given factor; it is the variations in demand which determine price. If demand rises, the price shoots up; while if the demand decreases, the price falls.

§ 3. LONG PERIOD OR NORMAL PRICE

We shall next discuss the determination of price in the long period. A long period is the period in which the supply of a commodity can be varied. The price ruling in the long period is called *Long Period or Normal Price*.

Normal Price

The market price of a commodity may vary from day to day and from time to time, but if we analyse such market fluctuations over a fairly long period, we will find a more or less constant price above and below which the market price tends to fluctuate. The price-level to which the market price tends to return repeatedly is the price prevailing in the long period and is called *Long Period or Normal Price*⁵. As the normal price approximates cost price, it is also sometimes defined as the *price which corresponds with the cost of production*⁶.

Determination of Normal Price

✓ The normal price of a commodity is determined by the forces of demand and supply, as is the case in the short period. But here *the cost of production plays the decisive role*. For, if the normal price remains above its cost of production, profits will accrue; consequently, production will increase, new producers will be attracted to the industry while old producers will be impelled to increase their

⁵ "Market prices, that is, the prices at which goods are actually sold from day to day, are variable and irregular in their operation... But behind most market prices are *normal prices*, which are much less subject to changes. This is because the conditions of production are more stable than the market conditions under which goods are bought and sold, and serve constantly to recall prices from the more or less violent fluctuations of the market."—Seager, *Principles of Economics*, p. 120.

⁶ Also see Moreland, *An Introduction to Economics*, pp. 208, 211.

volume of production. The supply having thus increased, the price will fall. On the other hand, if the normal price is lower than the cost of production, reverse conditions will occur: losses will begin to appear and production will be curtailed—some producers will withdraw and others will work for shorter period. These conditions will result in the reduction of the supply and so cause price to rise again. Thus for a given output, normal price must be equal to the expenses of production in the long period.⁷ It is apparent, therefore, that in this case (normal) price tends to approximate the expenses of production.

As the cost of production is the determining factor of normal price, the latter would vary according as the former changes. The change in the cost of production depends upon the laws of return.

Normal value and Laws of Returns

(1) If the article in question is produced under the *law of diminishing returns or increasing cost*, the cost of production would increase if the demand increases and falls if the demand decreases. The normal price would fluctuate likewise.

In the adjoining figure DD' is the demand curve and SS' is the supply curve of a commodity produced under the law of diminishing returns or increasing cost. The supply curve goes on rising, which shows that the increasing supplies will be forthcoming only at rising prices.

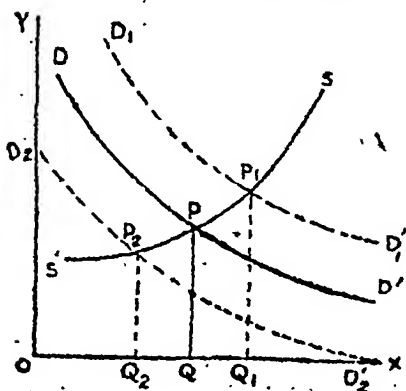


Fig. 58.

would become P_1Q . Conversely, if the demand falls, the demand curve may assume the position of D_2D_2' . This meets SS at P_2 . So the price corners down to P_2Q_2 .

⁷ The expenses of production of different firms differ. It may be asked, therefore, which is the firm whose cost of production we are referring to above? It is the average or the "representative firm." See Marshall, *Principles of Economics*, pp. 342-343. Also Pigou, *Economics of Welfare*. Some writers of text-books state that it is the marginal firm whose cost determines normal price! But this is wrong.

Thus we see that if the article in question is produced under the law of diminishing returns or increasing cost, the normal price would rise if demand increases and would fall if demand decreases.

(2) If the article in question is produced under the law of increasing returns or diminishing cost, the cost of production would decrease if the demand increases and increase if the demand decreases. The normal price would fluctuate likewise.

In the adjoining figure DD' is the demand curve; and SS' the

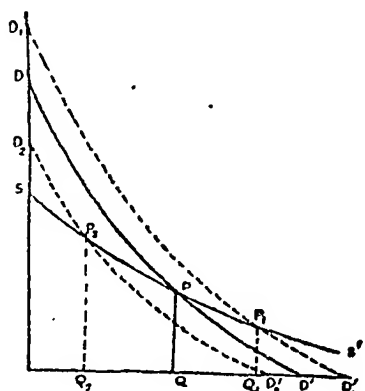


Fig. 59.

supply curve of an article produced under the law of increasing returns or diminishing cost—the supply curve shows a descent, thus indicating a fall in cost as supply increases. The two curves meet at P , so that PQ is the normal price.

Now let the demand increase. It now assumes the position of the D_1D_1' curve. This meets the supply curve at P_1 : so that P_1Q_1 will be the normal price. The price thus decreases as a result of an increase in demand.

Again if the demand falls, the demand curve will take the position of the D_2D_2' curve. This meets the supply curve at P_2 ; so that P_2Q_2 will be the normal price. The price thus increases as a result of a fall in demand.

Thus we find that if the article in question is produced under the law of increasing returns or diminishing cost, the normal price would fall if demand increases and rise if demand falls.

(3) If the article in question is produced under the law of constant returns or fixed cost, the cost would remain the same irrespective of an increase or decrease of price. The normal price would also remain fixed.

Thus we observe that if the article in question is produced under the law of constant returns or cost the normal price remains the same irrespective of a rise or fall in demand.

In the adjoining figure, DD' is the demand curve and SS' is the supply curve of a commodity produced under the law of

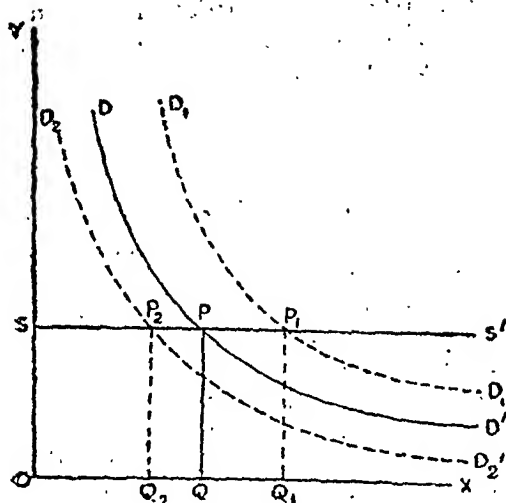


Fig. 60.

constant returns or cost. The supply curve is parallel to Ox axis, which shows that any quantity can be supplied at the same cost.

The demand curve DD' cuts the SS' at P so that PQ is the price. Now D_1D_1' shows an increase in demand which meets the supply curve at P_1 ; and P_1Q_1 is the resulting price. But P_1Q_1 is equal to PQ . Then again D_2D_2' shows a decrease in demand but here again the resulting price, P_2Q_2 is equal to PQ .

Articles Having No, or Little, Cost of Production

The statement that the value of a commodity is normally equal to its cost of production, sometimes misleads students to suppose that since 'it is the cost of production of a commodity which gives it its value, if there were no cost of production, there would be no value'. Cost of production, it should be borne in mind, represents only the supply side of the equation of exchange, and does not concern itself with its demand side. But price is determined both by demand and supply. As such, the above statement is not quite correct.

An article many have little, or no, cost of production but may be extremely valuable. Suppose you see a diamond lying in a desert you are crossing. You lift it up. Its value is immense though its cost of production is negligible—you had simply to bend yourself and pick it up. Why? Because the demand for diamonds is far greater than their supply.

Again, an article may have high cost of production but little value. If somebody takes into his head to construct a house in a desert, it will be a very costly project, indeed. But since few will like to live in the midst of a desert, its value will be very little. Its cost is great but the demand for it is so small that its value is very low.

Price, it should be remembered, is the function of both, the demand and the supply.

Market and Normal Price

The difference between market price and normal price is probably clear by this time. Market price is the price ruling at any

particular time; normal price is the price which rules in the long period. Normal price equals cost price; market price *tends* to be equal to the normal price and therefore, cost price.

§ 4. RELATIONSHIP BETWEEN MARKET PRICE, NORMAL PRICE AND COST

From the above discussion it is plain that there is a very close relationship between market price, cost and normal price. Normal price is equal to the cost or money cost of production. And market price fluctuates round normal price; it may vary from time to time but it cannot remain far away from the normal price for any considerable period. If it remains higher than normal price for long, unusual profits will begin to appear, production will increase in consequence, and, demand remaining the same, the market price will tend to fall. This movement will stop only when the market price comes close to the normal price and unusual profits cease to occur. Similar reasoning will show that the market price cannot remain below normal price for long. For, if this happens, unusual losses will begin to appear, production will shrink in consequence and demand remaining the same, market price will tend to rise. This upward movement will stop only when the market price comes close to the normal price and unusual losses cease to occur. Thus the market price cannot diverge violently from the normal price for long; it simply fluctuates just above and below the normal price and shortly returns towards it.

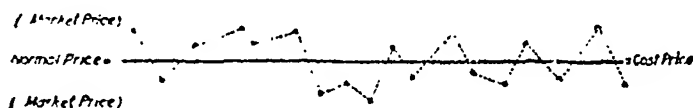


Fig. 61. Showing the relationship between market price, normal price and cost price.

Normal price, then, equals cost price; and market price fluctuates around the normal or cost price, always showing tendency to equate the latter. The above diagram illustrates this point.

§ 5. INFLUENCE OF UTILITY AND COST ON PRICE

It is sometimes asked whether cost or utility governs price. As a matter of fact, both determine price, in the short and long periods alike. In the short period, however, supply is fixed and demand varies; therefore, demand (or marginal utility) exerts a more decisive influence. In short period, then, the price is determined by *demand* in relation to supply, or marginal utility in relation to cost. In the long period, cost is of supreme importance as shown above and

exerts a more decisive influence. Hence normal price is determined by supply in relation to demand, or cost in relation to utility.

In connection with this controversy, Marshall very aptly observes : "We might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production. It is true that when one blade is held still, and the cutting is effected by moving the other, we may say with careless brevity that the cutting is done by the second; but the statement is not strictly accurate. In the same way, in short period, if a person chooses to take the stock for granted and say that the price is governed by demand, his brevity may perhaps be excused so long as he does not claim strict accuracy. In the long period, similarly, if a person takes it for granted that there will anyhow be enough demand for the commodity, he may be excused for ignoring the influence of demand, and speaking of (normal) price as governed by cost of production—provided only he does not claim scientific accuracy. Thus we may conclude that, *as a general rule*, the shorter the period which we are considering, the greater must be the share of our attention which is given to the influence of demand on value; and the longer the period, the more important will be the influence of cost on value."⁸

§ 6. VALUE UNDER MONOPOLY⁹

We have discussed above the determination of value under perfect competition. Now we will study as to how value is determined under monopoly.

Meaning of Monopoly

When there is only one seller in the market, such a condition is denoted by the term 'monopoly'. Monopolist has full control over the market. He can sell his commodity at any price he likes. He alone has the control on the price; hence he is called monopolist. A monopolist can certainly fix the price at which he will sell his commodity; but he cannot at the same time determine the amount of commodity that purchasers will buy. In fact, if he charges a high price, the demand for his commodity will be less; and if he charges a low price, the demand for his commodity will be great. The price is certainly under the full control of the monopolist; but demand is not under his control. Demand is determined by purchasers.

In practical life we do not come across any case when a seller has 100% control on supply. The Brazilian Coffee Association

⁸ Marshall, *Principles of Economics*, pp. 348-350.

⁹ This topic is included in Intermediate course in some universities only. For instance, it is included in Patna, Nagpur and Saugor universities; but is excluded in U. P. and Rajputana.

determination of prices cannot be left to these two forces. A period of war is an example. In war time, plenty of goods is sent to the various theatres of war; and besides several factories and fields are destroyed. Hence goods for civilian consumption are scarce, that is their supply is less than the demand for them. Consequently, prices begin to rise. When prices rise beyond a certain extent, the public is hard hit. In particular, the salaried class getting fixed income finds in such a time that its purchasing power shrinks with every rise in prices. Hence the Government fixes prices of various commodities by law. The fixation of prices by Government is known as *Price Control*; and the prices thus fixed are called *Controlled Prices*. No businessman can sell at prices higher than controlled prices. Such a conduct will be illegal.

When price control is enforced and goods are sold in the market at controlled prices, the market is called *Fair Market*. But if the supply of a commodity is very short, businessmen are tempted to realise more than controlled prices from their customers; and the buyers who are really needy have to pay such high prices. When a commodity is sold in a market at prices higher than the controlled price, such a market is called *Black Market*. The existence of a black market often indicates that government administration is incapable of controlling powerful economic forces.

Rationing

When scarcity is acute and price control is found inadequate to keep down prices, the Government enforces rationing of articles. By rationing is meant the fixation of the quantity of an article that an individual can purchase during a given time (say, a week, a fortnight or a month). He cannot purchase an article in a larger quantity. Rationing causes a little privation to everybody. But in its absence, the buyers will be able to secure the article only at very high prices. This will cause tremendous hardship particularly to members of middle and poor classes. It will lead to reduced consumption, a fall in the standard of living and ultimately a reduction in productive efficiency.

Price Level in India

Price Control and Rationing were enforced in India during the period of World War II. But in spite of them prices continued to rise and people suffered greatly. The Government failed to enforce the controlled prices; and black markets grew up everywhere. Once the businessmen got the taste of black market profits, they began to cause artificial scarcity—they would not supply goods even when they had stocks, and complain that they were not in stock and sell only at huge profits. Hence Gandhiji advised that price control and ration-

ing should be removed and normal economic forces should be allowed to operate without hindrance. In the beginning this might result in high prices but later the situation will tend to become normal. The Government adopted this policy. This led to still further rise in prices. Therefore, the Government again brought price control and rationing in force. But this has not resulted in reduction in prices. In the whole history of India, prices were never so high as they are today.

The effect of high prices has varied from class to class. Rich persons have earned huge profits in black markets and are continuing to do so; hence high prices have benefited them. But middle class persons have suffered very much, especially those who earn fixed salaries which remain more or less stable while prices rise. With their fixed income, they are able to purchase fewer articles; and the standard of their living has very much fallen. Cultivators are getting high prices for their produce; and their cost has not increased proportionately. Hence they are also happy. Factory workers are also suffering because while their wages have gone up, they have not increased so much as to dilute the rise in the prices of the commodities that they consume.

§ 8. SPECULATION

Speculation is a special form of trading which aims at deriving profits from differences in prices ruling at different times. A speculator purchases goods when their prices are low; and sells them after some time when the prices have sprung up high. For instance, during the month of May, which is the crop-moving season for wheat, wheat begins to flow in *mandis* in large quantities and is sold at low prices. Later on, after some time, the prices of wheat increase. Speculators purchase wheat in May and sell it later on at higher price thus earning profits. The time intervening between the purchase and sale of goods by speculators is usually considerable. Speculation plays an important part in the determination of the prices of the staple commodities.

The economic service performed by speculation is very great. When the supply of goods is large and the price is sagging low, speculators help to keep up the price by making purchases. Again, when after some time the supply of goods is reduced and the price tends to shoot up sky-high, they help to keep down the price by offering goods for sale. Thus they greatly help in steadying the prices. The stabilisation of prices is a very useful factor inasmuch as it enables both producers and consumers to come to definite and lasting conclusions without any fear of their being upset by untoward price fluctuations.

In order to be able to profit out of price differences, the speculator must have a clear insight into the working of demand and supply; a good foresight regarding the future trend of demand, supply, fashion, etc.; and a good control on the human tendency to become reckless and rash.

Speculation has, however, a tendency to deteriorate to an evil instrument. If it is reduced to pure gambling, the market may be flooded with artificial scarcity or artificial surplus of goods, baseless rumours regarding demand and supply, cornering, gambling in necessities of life, and the tossing of the prices of staples here and there frequently and widely. Such wild speculation is often based on no knowledge of the future trends and is conducted with rashness and recklessness. That is why we often find instances of merchant princes and millionaires becoming paupers in no time and of paupers becoming millionaires almost overnight. It is because of this unwholesome feature that speculation (or *sattebazi* as we call it in Hindi) is often looked down upon. To check these evils the Governments of various countries have attempted to control speculation, though not with much success.

TEST QUESTIONS

1. Why should price be paid and charged for a commodity? Explain fully.
2. 'Demand and supply determine price'. Show how?
3. Distinguish between cost of production and expenses of production. Which enters into the determination of price?
4. Explain the meaning of market price and show how it is determined.
5. Explain the meaning of normal price and explain its determination.
6. Show the relationship between market price, normal price and cost price.
7. 'Utility and Cost, both determine Price.' Explain this statement with reference to long and short period prices.
8. Are the following statements consistent :
 - (a) Value is determined by cost.
 - (b) Value is determined by demand and supply.
9. 'A market price at which marginal cost and marginal utility do not coincide cannot persist'. Explain and illustrate.
10. "If demand is doubled, the supply remaining the same, the price is doubled; and if the supply is doubled, the demand remaining the same, the price is reduced by one-half." Do you agree?
11. What is speculation? What is its economic value?
12. What is monopoly? How value is fixed under it?
13. Write a note on "Price control and Rationing."

EXAMINATION QUESTIONS

U. P. Int Arts.

1. How is value determined under perfect competition ? (1951)
2. "The price of a commodity tends largely to be governed by the conditions of demand in the short period and the conditions of supply in the long period." Examine the above statement and give examples. (1950)
3. "The value of any commodity cannot be permanently much above or below its expenses of production. Explain this statement fully. (1949)
4. "There cannot be general rise or general fall in prices." Explain and illustrate. (1947)
5. What do you understand by the 'normal price' of a commodity ? How will an increase of demand, other things being equal, affect the normal price of a commodity, the production of which obeys the law of increasing returns ? (I. A., 1946)
6. What is meant by temporary equilibrium of demand and supply ? How does it differ from normal equilibrium of demand and supply ? What is the relationship between the two ? Give examples to illustrate your answer. (I. A., 1945)
7. Define market price and show how it is determined. Why does it fluctuate so often. (I. A., 1944)
8. 'Market price of any commodity oscillates about its normal price' ? Explain this statement. (I. A., 1943)

U. P. Inter. Com.

9. How is price of a commodity fixed in the market ? Discuss the equilibrium of demand and supply in the market and also illustrate it. (1951)
10. "The value of a commodity cannot be permanently much above or below its cost of production." Discuss this statement and illustrate it by means of diagram. (1949)
- 10 A. "Demand and supply determine the market price," Discuss how. (1946)
11. Explain the difference between marginal and total utilities. Which of these helps in determining price ? State and explain. (I. Com., 1945)
12. How is the market price of any commodity determined ? Explain clearly and illustrate your answer by means of a diagram. (I. Com., 1944)
13. Distinguish between Gambling and Speculation. Describe the economic effects of speculation. (I. Com., 1943)
14. Distinguish between market price and normal price. Under what conditions is the cost of production a dominant factor in the determination of price ? (I. Com., 1942)

U. P. Int. Ag.

15. Explain when the price of commodity rises, its demand declines. (1948)
16. What is value ? How is it determined ? Explain the factors that become more dominant in the determination of short period and long period prices. (1948)

Raj Int. Arts

17. Explain fully the difference between 'Normal value' and 'Market value' and point out the importance of time element in the theory of value. (1949)
18. Contrast economy of price supply with rationed supply. How is the latter justified ? (1948)
19. Explain the part played by marginal utility and marginal cost of production in the determination of (1) market price (2) normal price. (1944)
20. Carefully explain how demand, supply and price are mutually dependent (1943)

44. Distinguish between 'Market Price' and 'Normal Price'. How is value determined in a long period market. (1946)

Sagar, Inter. Arts

45. How is value of a commodity determined under monopoly conditions? Explain and illustrate. (1949)

46. How the price of a commodity is determined under competition. (1949 Supp.)

47. How is the price of a commodity determined under competitive conditions? (1948)

Sagar, Inter. Com

48. Show how market price is determined. What is the relationship between market price and normal price. (1950)

49. Write a note on Cost of Production. (1950)

Nagpur, Inter. Com.

50. How is monopoly price determined? Mention the commodities which are sold at lowest possible price under monopoly conditions (1948)

51. What is monopoly? Does a monopolist charge a price which brings him greatest sale or greatest profit? Does he always charge this price? (1947)

52. Is the law of value under monopoly different from that under competition? If so, how? (1949)

Bombay, Int. Com.

53. Explain with examples how value is determined in the short period and and in the long period. (1948)

Poona, Inter. Arts.

54. In what circumstances does monopoly arise? How is monopoly price determined? (1949)

Poona, Inter. Com.

55. Distinguish between Market Price and Normal Price. (1949)

56. Under what condition does a commodity command exchange value? The following are the conditions of demand and supply of Fountain Pens:—

No. of Pens	Demand Price	Supply Price
	per unit	per unit.
	Rs.	Rs.
1,00,000	29	24
1,50,000	26	22
2,00,000	23	21
2,50,000	20	20
3,00,000	18	19

What will be the price of Pens in the market under (a) competition, (b) monopoly conditions? What difference do you find between competitive price and monopoly price? (1948)

Nagpur, Inter. Arts

57. How is the price of a commodity fixed under monopoly? A publisher has prepared the following statement of demand and cost of production of certain books:—

Price	Demand	Cost of production		
		per copy		
Rs.		Rs.	a.	p.
10	1,000	9	0	0
8	2,000	7	8	0
6	3,000	5	10	0
4	4,000	3	12	0
3	5,000	2	12	0
2	8,000	1	14	0

At what price would this book be sold ? (1949)

Travancore, Inter.

58. Define "short period" and "long period" and state the significance of the distinction between the two in the theory of value. (8943)

59. Write note on Equilibrium Price. (1949)

60. What is equilibrium of demand and supply ? Explain with the help of an example that value under competition tends to be determined at the point of equilibrium of demand and supply. Draw a diagram. (1948)

61. What is monopoly ? Does a monopolist charge a price which brings him greatest sale or greatest profit ? Does he always charge this price ? (1947)

62. Give factors which determine the value of a commodity in a competitive market. Give illustrations. (1945)

Panjab, Inter.

63. How is the market price of the following commodities determined ; (a) fresh fruits, and (b) wheat ? (1951)

64. What are the forces and factors that determine price ? How are prices related to the cost of production ? (1950)

65. How does the determination of market price differ from that of normal price ? (1949)

66. Distinguish between perfect and imperfect market. What conditions help to make the market perfect ? (1949)

66. (a) Plot the supply and demand curves for a commodity from the data given below :

(b) Find out the Normal Equilibrium Price of the commodity and the amount that will tend to be supplied at that price.

(c) What would you expect to happen if the amount of the commodity available in the market at any time is 675 maunds or 450 maunds. (Trace both the immediate and long period effects.) (1948)

Price per md.	Amount Demanded	Amount Supplied
(Rs)	(mds)	(mds)
6	500	800
5½	550	700
5	625	650
4½	750	600
4	850	575
3½	950	500
3	1000	400

67. Explain the advantages and disadvantages of free competition. (1949)

Delhi, Higher Secondary

68. What is a market ? Explain how market price is determined ? (1951)

69. Write a note on Monopoly. (1950)

70. Value is determined by supply and demand: Do you agree with this view ? Discuss fully. (1949)

71. Briefly describe the chief advantages of competition. When does competition lead to monopoly ? (1949)

72. Define monopoly and show how monopoly value is determined (1951)

CHAPTER 48

MONEY

Money is the centre around which economic science clusters—*Marshall*.

After discussing the theory of value, which is the essence of Exchange, we now pass on to the discussion of the various parts of Exchange Mechanism. Let us first take up the study of *Money*.

§ I. MEANING OF MONEY AND ITS FUNCTIONS, ETC.

Origin and History of Money

Barter, we learnt in Chapter 44, has three shortcomings, namely, the improbability of double coincidence of wants; the complexity of exchanges, which are not made in terms of one single substance; and the need of some means of dividing and distributing valuable articles. To remove these defects men, at a very early stage, hit upon an *intermediate commodity* which began to be universally accepted in exchange for goods and services, which formed a basis for the measurement and comparison of the value of other commodities and in which shape value could be sub-divided. Such an intermediate commodity is known as *Money*.

The actual form assumed by money since its origin, has been extremely variable. In the modern communities, money is represented by metallic coins and paper notes; and we often suppose that money has only these two forms. This supposition is wrong as is proved by the history of early times when money existed in various other forms.¹ In the hunting stage, furs and skins were employed as money. In the pastoral stage, the next higher stage of civilization, they were replaced by sheep and cattle. A passion for personal decoration being one of the most primitive and powerful instincts of the human race, ornaments also began to be circulated as money. In the agricultural stage, corn *kowris*, etc., were used for the purpose. Later on, articles like cotton cloth, salt, etc., were tried. All of them were, however, found wanting in some respect or the other, and were finally replaced by gold and silver. The latest form of money is the paper money, which is decidedly its most convenient and the most economical type.

¹See Ridgeway, *The Origin of Metallic Currency and Weight Standards*; Powers, *The Tribes of California*; Powell, *Wanderings in a Wild Country*, etc.

Definition of Money

Different writers have defined 'money' (or 'currency') in different ways. It is defined sometimes narrowly and at others broadly. In the narrow sense, money refers to metallic coins only. In the broad sense, money signifies each and every form of the medium of exchange—metallic coins, currency notes, cheques and bills of exchange. Modern economists, however, steer the midway and define money as a *commodity which is generally acceptable in final payment of dues*. Ely defines money as "anything that passes freely from hand to hand as a medium of exchange and is generally received in final discharge of debts".² According to this definition, money includes metallic money and paper notes.

The student should also be aware of another term, namely, *currency*. Money and currency are interchangeable terms. All the things *current* as money constitute 'Currency'.

Diagram 62 on the next page illustrates the meaning of the term money. The smallest circle represents money in the narrow sense; the bigger circle, in the proper sense; and the biggest circle, in the broad sense.

According to this definition, *cheques* are not money. They are not legal tender and may not be accepted from persons little known or of doubtful credit. As such, they do not pass freely from hand to hand and are not money. The same is true of *Hundis*. *Currency Notes*, on the other hand, are legal tender and are usually issued by authorities of unimpeachable soundness. Consequently they are freely acceptable and are money. *Pice* are legal tender to the extent of Re. 1 only. They are not acceptable freely after that limit, partly because they lose their legal tender character and partly because they become inconvenient; and consequently cease to be money after that point.

Functions of Money

Money performs four main functions³ which are as follows:

²Robertson defines money as a commodity which is used to denote anything which is widely accepted in payment for goods or in discharge of other kinds of business obligation. Robertson, *Money*. J. M. Keynes, a very brilliant monetary economist, says, "Money is that by the delivery of which debt contracts and price contracts are discharged and in the shape of which general purchasing power is held".—J. M. Keynes, *Treatise on Money*, Vol. 1.

³Money is a matter of functions four,

A medium, a measure, a standard, a store.

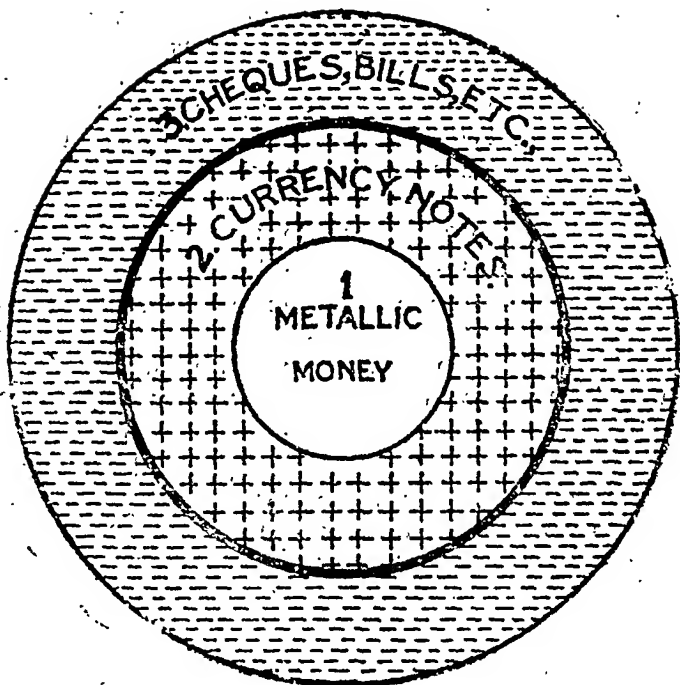


Fig. 62—Illustrating the scope of the term "Money."⁴

[NOTE—Circles 1+2 constitute money]

(1) *Common Medium of Exchange.* The fundamental function of money is to act as a common medium of exchange. The significance of the word 'medium' is that it becomes an intermediate thing in the commerce between the producers and consumers of any and every article⁵. Goods instead of being exchanged directly for other goods, as under barter economy, are bought with and sold for money. Money thus becomes a universal tool for making exchanges. It is freely acceptable in exchange for all other commodities; and its owner is able to get for it anything he likes without any inconvenience. This is the primary function of money, other functions having been derived from it. It is essentially *the Money Function*. Whatever performs this function, is money. This function removes the necessity of the double coincidence of wants, which is felt under the barter system.

⁴Students may remember the following:

In *narrow* sense, Money=Metallc Money.

In *wide* sense, Money=Metallc Money+Paper

Money+Bills of Exchange, Cheques, etc.

In *proper* sense, Money=Metallc Money+Paper Money.

⁵Walker, *Political Economy*, p. 122.

(2) *A Common Measure of Value.* The first function of money has for its natural corollary the second function, namely, to act as a common measure of value. When persons become used to exchange all the things for one particular commodity (money), they begin to measure the values of all the articles in the terms of latter alone. Just as we measure cloth in terms of yard and gold in terms of tolas, similarly we measure the value of all commodities in terms of money. Consequently all exchanges are calculated and adjusted by a comparison of the money values of the things exchanged. Money thus becomes a common measure of value.

(3) *Store of Value.* The third function of money is to enable its owners to preserve value in this shape for a long period, without any fear of loss.⁶ Metallic money wears out very slowly and is an ideal store of value. Paper notes do not fulfil this function very well.

The storing of value in the form of goods is not as convenient as in that of money, mainly because goods deteriorate through passage of time and their value fluctuates widely. Moreover, they occupy much space. Such difficulties do not arise in the case of money. Hence money has come to be recognized as the best form in which value can be stored. If the owner of money were to suffer loss by not exchanging it at once, much of its usefulness will, indeed, be lost.

(4) *A Standard of Deferred Payments.* In the economic society of today, loans are daily given and taken and the repayment is deferred or postponed to a future date. In such cases, it is only just that the borrower should return to the lender the same value which he had borrowed. This is possible only if lendings and borrowings are carried on in terms of money whose value remains fairly stable; and not in terms of other goods or services whose value is subject to wide and frequent fluctuations. Money thus becomes the measure by which the value of future payments is regulated.

Money thus acts as a common medium of exchange, a common measure of value, a store of value and a standard of deferred payments.

Attributes of a Good Money Commodity

The commodity of which money is made has to be carefully selected so that money may fulfil its functions fairly well. An ideal money material should possess the following qualities⁷:

(1) *Utility or General Acceptability.* General acceptability is

⁶When we speak of value being stored in money, we do not imply that value is something intrinsic in money; we mean that money is a durable thing and that it is always saleable—Turner, *Introduction to Economics*, p. 202.

⁷The chief qualities are Cognisibility, Utility, Portability, Durability, Indestructibility, Stability, Homogeneity. The first letters of these terms make "CUP, DISH". By this formula, these attributes can be easily remembered. Malleability is another quality, which may be added in the end as the eighth attribute.

the very essence of money. Unless a person knows that the money which he accepts in exchange for his goods or services, will be taken without any objection by others as well, he will not accept it, *i.e.*, it will cease to be current. In order to possess general acceptability a commodity should have some intrinsic utility independent of its value for monetary purposes. Gold and silver are generally acceptable to all without any hesitation because they are for ornamental and other purposes and can be easily sold as bullion,⁸ besides being used for monetary purposes.

(2) *Portability*. A commodity fit to be used as money must be such that it can be easily and cheaply transported from one place to the other. In other words, it must possess high value in small bulk. Precious metals possess this quality. In the case of oxen and grain, a small value occupies a large bulk and weight; hence they are unsuited as money commodity.

(3) *Indestructibility or Durability*. As money is to be passed about in trade and kept in reserve, it must not be subject to easy deterioration, either in itself or as a result of wear and tear. "It must not evaporate like alcohol, nor putrefy like animal substance, nor decay like wood, nor rust like iron. Destructible articles, such as eggs, dried cod fish, cattle, or oil, have certainly been used as currency; but what is treated as money one day must soon afterwards be eaten up."⁹ Gold coins are very lasting; each of them takes about 8,000 years to wear out completely. Silver coins are not equally lasting but wear out fairly slowly. As such gold and silver are considered to be excellent money commodities.

(4) *Homogeneity*. All portions or specimens of the substance used as money should be homogeneous, that is, of the same quality, so that equal weights have exactly the same value. In order that a commodity may be used as a measure of value, it is essential that its units are similar in all respects. Gold and silver are of the same quality throughout; their various parts are similar in chemical and physical composition, and their consistency is the same throughout the mass.

⁸Some students may think that paper, of which paper note is made, does not possess any utility independent of its value as money; hence, it should not be generally acceptable. But in actual practice it is not exactly so. It must be remembered by them that certain cash or gold resources or securities always back the notes; so that the intrinsic value of notes is to be measured by the resources backing them.

⁹W. S. Jevons *op. cit.*; pp. 36-37.

(5) *Divisibility*. The money material should be capable of division; and the aggregate value of the mass after division should be almost exactly the same as before. If we use diamond as money and perchance it drops from our hand and breaks, we will suffer enormous loss. This is not the case with precious metals. Their portions can be melted and remelted together any number of times without much loss.

(6) *Malleability*. The money material should be capable of being melted, beaten and given convenient shapes. It should be neither too hard nor too soft. If the former, it cannot be easily coined; if the latter, it would not last long. It should also possess the attribute of *impressionability* so that it may easily receive the impressions.

(7) *Cogniscibility*. By it we mean the capability of a substance for being easily recognised and distinguished from all other substances. As a medium of exchange, money has to be continually handed about and it will cause great inconvenience if every person receiving it were to scrutinize, weigh and test it. It should have certain distinct marks which nobody can mistake. Gold and silver are at once recognized by their distinctive colour, metallic ring and heavy weight for small bulk, and, as such, satisfy this condition admirably.

(8) *Stability of Value*. Money should not be subject to fluctuations in value. Fluctuating standard of value is just like a changing yard or seer. The value of a material which is used to measure the value of all the other materials, must be stable.

People employ money as a standard of value for long period contracts; and they often pay as much money as they had borrowed after some time. Hence a change in the value of money over a long period inflicts injury on some sections of society. Fluctuations in the value of money at any particular time are also injurious. If a labourer, who has earned eight annas today to be spent tomorrow, finds in the meantime its value (that is, purchasing power) reduced by half, he would suffer serious loss.

The value of gold remains, more or less, stable as its yearly output is small compared with the great quantity already in existence. But the value of silver is not so stable. In recent years, however, the value of gold has been fluctuating seriously.

The ideal money commodity should, as such, possess utility, portability, durability, homogeneity, divisibility, malleability, cogniscibility and stability of value.

Gold and silver known together as precious metals, possess all these qualities and are, therefore, universally used for coining

purposes. Brass, copper, nickel, etc., are used for coining small coins because if made of precious metals they would be too small and microscopic.

Classification of Money

(A) *Metallic and Paper Money.* Money may be classified into two simple classes : (1) The money printed on, or made of, metal, is called metallic money. It has an intrinsic value independent of its monetary value and (2) The money printed on paper, called paper money, e. g., the Reserve Bank Note. It has no intrinsic value other than its value as a monetary unit.¹⁰

(B) *Limited and Unlimited Legal Tender.* Money is always legal tender but the extent to which it is legal tender differs. The degree of its legal tender character may, therefore, be regarded as another standpoint of its classification.

By legal tender is denoted the money which a creditor is, by law, bound to accept in discharge of debts. A refusal on the part of the creditor to accept it as such, amounts to a legal offence punishable by law. According to our definition of money, a commodity called money must be *generally acceptable*. This can happen only if it is legal tender. Hence money is always legal tender ; and anything which is legal tender is money. A commodity which is not legal tender cannot be regarded as money.

Money may be *limited* legal tender or *unlimited* legal tender. The unlimited legal tender is the money which can be legally tendered or given by the debtor to his creditor to any extent whatsoever. In India rupees and eight-anna bits are unlimited legal tender ; so also are the Reserve Bank notes. Limited legal tender, on the other hand, is the money which is tenderable only upto a limited extent. In our country four-anna, two-anna and one-anna pieces and pice and pies are limited legal tender.

Importance of Money

Money has always been held in high esteem and the influence of pecuniary calculus upon ethical standards has been very definite. As Horace wrote—

All things human and divine, renown,
Honour and worth, at money's shrine go down.

Pope similarly writes—

There London's voice, get money, money still,
And then let virtue follow if she will.

¹⁰But we may regard the reserve behind it is representing its intrinsic worth as said above.

Prof. Davenport gives the following impressive description of the social importance of money :—More and more human efforts, human interests and desires and ambitions fall under the common denomination of money. Health is easier for him who has the wherewithal to pay for goods, foods and medicines, to travel and employ good nursing and to command capable physicians and efficient surgeons. And in their degree also, love and pity, respect and peace are bought and sold upon the market. All economic comparisons are made in money terms, not in terms of beauty or of artistic merit or of moral deservings.

The economic importance of money eclipses its social importance. A chemist has his delicate balance for measurement, the physicist has his finely graduated ruler; the economist similarly employs money as a rough measure. The whole economic science is based on money; economic motives and activities are measured by it.

While studying Consumption, we had to take the help of money at every stage. We arranged the items of our expenditure in order of their utility which is measured with the measuring rod of money. The urgency of our wants, the satisfaction derived from the consumption of a commodity and such other motives are measured by money.

Production is greatly facilitated by the use of money. The modern large-scale production is based on division of labour, which, in its turn, is the gift of the introduction of money.

Under Exchange, the importance of money shows itself most prominently. The old barter economy was characterized by serious shortcomings, to remove which men had to hit upon a universal "go between" in exchange of commodities. Nowadays almost all the transactions are carried on in terms of money.

Money plays an important role in the distribution of wealth and income of a group of co-operative agents of production. The share of various agents is determined and paid in terms of money. The distribution of social energy amongst the various forms of enterprises takes place through the medium of money. Whenever any business shows high profits, people begin to invest money in it.

Indeed, in every phase of Economics, money makes its appearance with superb prominence. Economic science, Marshall aptly remarks, clusters round money.

§ 2. METALLIC MONEY

Coins

In modern times, metallic money takes the shape of coins. In primitive days, precious metals in their rude and uncoined form were

used for this purpose. This was very inconvenient ; money had to be weighed and assayed each time an exchange was effected. Hence, the system of shaped pieces of the metal, whose weight and fineness were certified by a mark or stamp, came into vogue. This form of money, however, was open to clipping, (*i. e.*, cutting away of the small particles of the metals) and abrasion (*i. e.*, the practice of putting a large number of coins into a bag and shaking it so as to remove small fragments of the metal). The next stage, therefore, was marked by the advent of the coin, *a piece of metal of particular shape bearing a seal of a certain weight and fineness*. After some time the edges of these coins began to be milled and impressed with a complex and artistic design so as to make counterfeiting difficult. Thus the modern coin came into being. Coins have been defined as *ingots of which the weight and fineness are certified by the integrity of design impressed upon the surfaces of the metal*.¹¹

The best form of coins is one whose design takes into consideration the following four points : (1) the prevention of counterfeiting ; (2) the prevention of the fraudulent removal of metal from the coin ; (3) the reduction of the loss of metal by legitimate wear and tear ; and (4) the making of the coin an artistic and historical monument of the state issuing it and the people using it.

The art and practice of making coins is known as *coinage*. In the modern society it is the function of the State. The place where coins are made is called a *mint*.

Free and Limited Coinage

Coinage may be *free or limited*. If mints are made open to the public, *i. e.*, if the public has the privilege and right (or is free) to take metal to the mint and get it converted into coins of the realm, the system is called *free coinage*. Before September 1931, when the United Kingdom was on gold standard, there was free coinage system in that country. In India mints were closed to the public in 1893 and since then they have never been opened to it.

The Government Mint may or may not charge something for minting coins. When the Government reserves the right of making coins, so that no member of the public is allowed to take metal to the mint and get it converted into coins, the system is called the *limited coinage*. In India since 1893 and in the United Kingdom since 1931, limited coinage system is in force.¹²

¹¹W. S. Jevons, *Money and the Mechanism of Exchange*, p. 57.

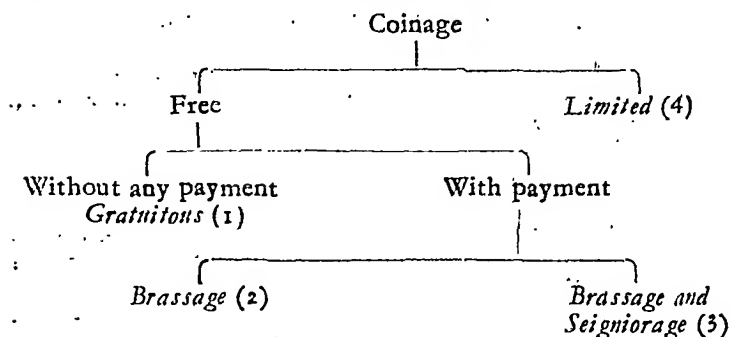
¹²Students should not confuse between *limited legal tender* and *limited coinage*.

Gratuitous Coinage, Brassage and Seigniorage

Free coinage does not necessarily mean that the state converts metal into coins free of any charge. It may or may not do so. When it does not make any such charge, the coinage is said to be *gratuitous*. Where the Government levies a charge for coinage just equal to the cost of minting the coins; the charge is called *mintage* or *brassage*. If the Government charges something over and above the cost of minting, the additional charge so made is called *Seigniorage*.¹³

Illustration. Suppose there is free coinage in any particular country. If you give one ounce of gold and get it converted into coins free of charge, the coinage is gratuitous. But if the cost of minting is 1 per cent and the minting charges have to be paid to this extent, then 1 per cent charge is the brassage or mintage. If the State charges 5 per cent in place of 1 per cent for minting, 2 per cent additional charge is seigniorage.

These three systems of coinage are to be found only in case of free coinage and not in the case of limited coinage. The following chart gives the consequential four systems of coinage:



Debasement

The reduction of the weight, or fineness, or both, of the metal contained in a coin is called debasement.¹⁴ Debasement through the reduction in the fineness of metal can generally be practised only by the Government. Weight can be reduced by others as well. The following are the chief methods adopted for this purpose:

¹³When the Government makes a profit out of the coinage by fixing a low legal tender, the amount taken in addition to the cost of coinage is called seigniorage—Penson, *op. cit.*, P. I., pp. 122-123.

¹⁴It has sometimes happened, as in Tudor times, that the Sovereign has issued money containing less than the standard amount of precious metal.

(1) *Clipping*, i. e., the cutting away of small portions from the edges of the coins.

(2) *Sweating*, i. e., the reduction of the quantity of the metal in the coin by the action of corrosive chemicals.

(3) *Abrasion* i. e., the practice of shaking up the coins in a bag and then by removing minute particles of the metal.

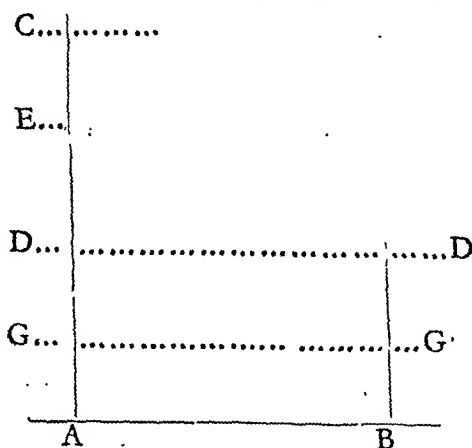
Standard and Token Coins

A *standard coin* is one whose face value is equal to its intrinsic value. It is the principal money of the realm, is unlimited legal tender and is subject to free coinage. Since its face value and intrinsic value are the same, it is also called the '*full-bodied coin*'.

A *token coin*, on the other hand, is the one whose face value is greater than its intrinsic value. It is the subsidiary money, is limited legal tender and is subject to limited coinage. Token coins are variously styled as the *fiat coins or money* since their value depends, not on their intrinsic worth, but on the order of the State.

The following table shows the difference between standard and token coins :

This difference between the standard and real value is called debasement.



Let AC=Nominal value of the coin.

AD=Legal amount of metal in the coin.

AG=Actual amount of metal in the coin.

CE=Cost of minting the coin.

Then CE=Brassage.

ED=Seigniorage.

DG=Debasement.

(Ibid, p. 123)

Standard Coins	Token Coins
<ol style="list-style-type: none"> 1. They are the principal money. 2. Their face value is equal to intrinsic value. 3. They are unlimited legal tender. 4. They are open to free coinage. 	<ol style="list-style-type: none"> 1. They are the subsidiary money. 2. Face value exceeds intrinsic value. 3. They are limited legal tender. 4. They are open to limited coinage.

Before September 1931, the gold sovereign in the United Kingdom was the standard coin of that country. But in Sept. 1931 she went off gold, and paper-pound sterling replaced the gold sovereign. In India, there is no standard coin in the strict sense of the term. Our principal coin is the rupee which is standard money in so far as it is the principal money of the realm and is unlimited legal tender; and also token money inasmuch as its face value is greater than its intrinsic value, and it is subject to limited coinage. Because of its hybrid character, it has been well styled as the "*token standard*." Some economists, however, like to call it *the standard* money of India for "as long as the main currency is in rupees, all contracts are made and taxes calculated in rupees, and rupees are the legal tender to any amount, the rupee is really the standard."

§ 3. PAPER MONEY

In the modern State, we find considerable quantity of paper money circulating side by side with metallic money. The term paper money refers to Government or Bank notes which pass freely from hand to hand. Cheques and bills of exchange are not included in paper money.

The real nature of paper money was well expressed by Ricardo when he said that the whole charge for paper money may be considered as seigniorage. Though it has no intrinsic value, yet by limiting its quantity its value in exchange is made as great as an equal denomination of coin or of bullion in that coin. It is not necessary that paper money should be payable in metallic coins to secure its

value ; it is only necessary that its quantity should be regulated according to the value of the metal, which is declared to be the standard.

Advantages of Paper Money

Paper money is becoming increasingly more popular because of the many advantages that it possesses : (1) It is very light and handy and, therefore, *can be easily and cheaply carried over long distances*. This advantage becomes marked, when large sums have to be paid to somebody far away. (2) *It is very economical*. The cost of making it is very small. A sheet of paper and a printing press enables the Government to print money worth lacs and crores of rupees. Compare it with the great cost involved in digging the metal, transporting it to the mint and coining it, which the metallic money necessarily involves. (3) It contains a *very large value in a small volume*. (4) *In times of national emergency* and financial stringency, the Government need not find itself handicapped by lack of money material. It can set the printing press to work and print as much money as it likes.

Disadvantages of Paper Money

Paper money suffers from two main demerits : (1) The Government, if they so wish, may go on printing notes to such an extent that their value goes down drastically. This, however, can be checked if the issue of paper is kept under the control of a Central or Reserve Bank independent of the undue Government influence. (2) Because of its zero intrinsic value, its circulation is considerably restricted. This fear, however, has proved to be false. Even in a country like India where the majority of the people are ignorant and suspicious, paper money is quite popular and is used in the normal course of things. So long as the credit of the issuing authority is unimpeachable and its word as good as gold, there need not be any restriction to its circulation.

Convertible and Inconvertible Paper Money

Convertible of Redeemable Paper money. Paper money may be convertible or inconvertible. It is convertible when it can be converted into standard metallic money of the land on demand. For instance, the Reserve Bank notes bear the promise to pay the bearer on demand the sum of a certain number of rupees at any office of issue, a promise which is always fulfilled. The Reserve Bank notes are, as such, convertible.

In order to guarantee this convertibility, the issuing authority keeps a certain amount of bullion and metallic coins in "reserve".

All the notes are not simultaneously 'presented' for encashment. The issuing authority knows by experience the percentage of the total notes which are presented for the purpose at any particular time. It keeps the same percentage of bullion and coins in reserve. The portion of the total notes issued, which is covered with the 'reserve', is known as *Covered Issue*, the rest being called *Uncovered or Fiduciary Issue*.

If a 100% reserve is kept behind paper money, it is then called *Representative Money*. But such money is not of great advantage since real advantage of paper money lies in the economy of precious metals.

Inconvertible or Irredeemable Paper Money. Inconvertible notes are not converted into standard metallic money by the issuing authority. Even then they may circulate by the sheer force of the authority of the Government. Hence, they are sometimes called *Fiat Money*.

If the quality of the inconvertible paper money does not exceed the legitimate business and industrial requirements, there is no reason why they should not function efficiently. But, unfortunately, the issuing authorities begin to misuse their power and issue money in unlimited quantity, so much so that the notes become almost worthless paper. This happened in many European countries during the last Great War. For example, the value of the German Reichsmark deteriorated so much that it became less than the value of the paper on which it was printed. *Greenbacks* in America during the American Civil War and French *Assignats* during the French Revolution are other examples of inconvertible paper money. During the present war, the Government of India have also issued one-rupee notes which are inconvertible.

TEST QUESTIONS

1. Trace the origin of money. Have precious metals always been used as money?
2. Define money. Discuss the broad and narrow definitions of this term. Are *Hundis* and *Cheques* included in money?
3. Discuss the functions of money as clearly as possible.
4. Describe the attributes of a good money material.
5. What do you mean by legal tender? Distinguish between limited and unlimited legal tender money. Give examples.
6. What is the social and economic importance of money. Distinguish between metallic and non-metallic money.
7. What is a coin? What do you understand by free and limited coinage?
8. Define the terms gratuitous coinage, *brassage* and *seigniorage*.
9. Explain debasement. What do you understand by standard and token coins?
10. Discuss the nature of money and show its advantages and disadvantages.

11. Write explanatory notes on convertible and inconvertible paper money. What is fiat money ?

U. P. Int. Arts.

EXAMINATION QUESTIONS

1. What are the advantages and disadvantages of the use of Paper Money ? Discuss the dangers of over-issue. (1951)

2. Write note on Standard and Token coin. (1951)

3. What are the advantages of the use of cheques ? Are they money ? (1950)

4. Write notes on Appreciation and Depreciation. (1948)

5. Write short notes on standard and token coins, and on inflation. (1947)

U. P. Board

6. Distinguish and explain the principal forms of paper money. Indicate the advantages of a good system of paper money. (I. A., 1946)

7. What is a coin ? Where is it made ? How does the system of coinage in England differ from that of India (in normal times) ? (I. A., 1945)

8. Explain the meaning of the term 'legal tender'. What functions does money perform ? (I. A., 1944)

9. What is meant by the term 'money' ? Describe briefly the qualities which a commodity should possess in order to serve as money. (I. A., 1943)

10. Define money and explain its functions fully. (I. A., 1942)

11. What are the advantages of paper money ? How is its convertibility maintained in India ? (I. A., 1943)

U. P. Int. Com.

12. Describe the various functions of money. (1950)

13. Write a short note on Standard and Token coins. (1950)

14. Write a short note on Covered and Fiduciary issue of notes. (1949)

15. What are the advantages of paper money. Is it possible to replace metallic money entirely by paper money ? (1948-1941)

16. What is standard coin ? Is the rupee a standard coin ? Explain the present position of the rupee. (1947)

U. P., Int. Agr.

17. Write a short note on money. (1951)

18. Write a short note on paper money. (1950)

Raj. Int. Arts.

19. Describe briefly the chief functions of money and point out the reasons for the general acceptability of the precious metals for being used as money. (1949)

20. Indicate the reasons for the use of gold as support for the currency system of a country. How does this apply to our country ? (1948)

21. Carefully define money according to your definition. Will the following come under the category of money ; (a) a lump of gold, (b) a pice (c) one-rupee note, (d) a diamond, (e) wheat ? (1944)

22. Write notes on (a) Dangers of inconvertible paper money, (b) legal tender, free coinage, fiduciary money. (1944)

23. (a) Carefully explain whether there can be any difference between the legal value of a rupee and its intrinsic value if there is free coinage and people are allowed to melt the coin. (b) What is legal tender? Give illustration from Indian currency. (1943)

24. What is meant by depreciation of money? How will depreciation of money affect different classes of people in India? (1942)

25. Define 'money'. In the light of your definition explain whether cheques are money. What are the advantages of cheques? (1941)

26. Distinguish between standard money and token money. Discuss whether the rupee in India is standard money or token money? (1941)

27. What is standard money and token money? Is the rupee in India standard money or token money? Give reasons for your answer. (1940)

Raj. Int. Com.

28. Distinguish and explain the principal forms of paper money. Indicate the advantages of a good system of paper money. (1949)

29. Explain the functions of money. Why has money exchange replaced barter? (1948)

30. Define money and explain its essential characteristics. (1947)

31. Write a note on Legal Tender. (1947)

32. Distinguish and explain the principal forms of paper money. Indicate the advantages of a good system of paper money. (1946)

Patna. Int. Arts.

33. Define money. What are its functions? (1949 S)

34. Define money. What are the difficulties of Barter? (1948 A)

35. What are the different kinds of money you see and what are the special advantages of each over the other forms of money? (1948 S)

36. What are the different kinds of medium of exchange we use and what are the special advantages of each? (1946 S)

Patna Int. Com.

37. What are the different kinds of money used by a modern community? (1949 S)

38. What do you mean by 'Rate of Exchange'? Should it remain stable? (1949 S)

39. Write a note on inconvertible paper money. (1949 S)

Patna Int. Com.

40. What is meant by inconvertible paper currency? Is there any advantage in keeping paper currency convertible? (1948 S)

41. What are the different kinds of money used in India? What advantages do we get by using these different kinds of money instead of only one kind, say, the rupee coin? (1947 S)

Banaras Int. Arts.

42. Define 'money'. State and explain the various functions of money. (1948)

43. Distinguish and explain the various forms of paper money. Indicate the advantages of a good system of paper money. (1947)

44. Write a note on Importance of money. (1946)

Sagar Int. Arts.

45. Explain the essential qualities of a good money material. (1950)
46. Define money. What are the functions of money ? (1949)
47. Explain different kinds of paper money. (1949)
48. Describe the various systems of note issue. (1949 Supp.)
49. What are the essential qualities of a good money material ? (1949 Supp.)
50. Write notes on :—
 - (a) Standard and Token coin,
 - (b) Convertible and inconvertible paper currency,
 - (c) Fixed fiduciary system of paper money. (1948)

Nagpur Int. Arts

51. What are coins ? In what respects do token coins differ from standard coins ? Illustrate. (1949)

52. Clearly explain how convertible paper money secures economy in precious metal : Describe the paper currency system now prevailing in India. (1948)

53. Write note on Gold as an ideal money material ? (1948)

54. Explain clearly the difference between (a) Standard and token coins, (b) Good and bad money. (1947)

Nagpur Int. Com.

55. Explain clearly the difference between,

(a) Standard and token coins.

(b) Good and bad money. (1947)

56. What are the qualities that a good money material must possess ? Explain what you understand by standard and token coin. (1946)

57. Write a short note on inconvertible paper money. (1946)

Travancore Int.

58. Define money. Discuss in the light of your definition whether the following should be regarded as money : (a) An old Arcot rupee, (b) a Defence certificate for Rs. 10. (c) a five-tola gold bar ; (d) one-rupee postal stamp. (1943)

59. (a) "Distinguish between "free coinage" and "gratuitous coinage"

(b) What do you mean by mint par of exchange and "gold" points ? In what circumstances does the exchange rate go beyond the gold points. (1943)

Panjab Inter.

60. What is money ? What are the functions of money ? (1951)

61. Under what conditions does money cease to perform its proper functions ? Did such a situation ever arise in India ? (1949)

62. Define money and show how money economy makes an advance over the system of barter. Also mention the conditions under which money may become a source of embarrassment to the community. (1948)

Delhi, Higher Secondary

63. Discuss the advantages and disadvantages of paper money. (1950)

64. Write short notes on (a) token money, (b) paper money and (c) legal tender. (1950)

65. Define money and explain briefly its chief functions. (1948)

66. Write short notes on token coins, legal tender and seigniorage. (1951)

STANDARDS, VALUE OF MONEY AND GRESHAM'S LAW

Jevons certainly, and Edgeworth and Dr. Bowley probably, have also pursued something distinct from purchasing power of money, something which has to do with what they might describe as the value of money as such or, as Cournot called it, the *intrinsic value of money*. This is will-o'-the-wisp, a circle squaring expedition which has given an elusive taint, difficult to touch or catch, to the treatment of the Theory of Price Index Numbers tradition in England.—*J. M. Keynes.*

In the preceding chapter we discussed some elementary facts about money. Now we shall study the following monetary problems of an advanced nature: (1) Monetary Standards; (2) Value of Money; and (3) Gresham's Law. Gold Standard and Quantity Theory of Money have been treated in *Appendices* to this Chapter.

§ 1. MONETARY STANDARD

Definition of a Monetary Standard

The way in which the currency system of a country is controlled has vital effects on its economy. As such, the currency system should be controlled with a view to fulfil certain objective or standard calculated to maximise the welfare of the nation. Such an objective is known as Monetary or Currency Standard. The monetary standard has been defined as *the standard or object with reference to which the value of a currency unit is regulated*¹.

In recent times a large number of standards has been devised and practised and serious attempts have been made to achieve nicety, precision and efficiency in currency management. The important types of monetary standards are Monometallism, Bimetallism and Limping Bimetallism.

Monometallism

A system of currency in which only one metal is used for the coinage of the standard or principal money is termed monometallism; and the country having it is said to be a monometallist country. The metal used for this purpose is either gold or silver. No other metal has been found to be suitable for this purpose.

¹B. R. Shenoy's article, *A Classification of Currency Standards* in the *Indian Journal of Economics*, October 1936, is instructive in this connexion.

(a) *Gold Standard.* The monometallic standard in which gold is used for the coinage of standard money is known as *Gold Standard*. This has been the most popular monetary standard in the world in recent times. England was on gold standard till September 1931, but during that month, she gave up this standard or *she went off gold* as the phrase goes. The reader is referred to *Appendix I* to this chapter for a fuller discussion of the gold standard.

(b) *Silver Standard.* The monometallic standard in which silver is used for the coinage of standard money is known as *Silver Standard*. This standard is subject to capricious and wide fluctuations because of the enormous quantity of silver mined each year. As such, it has been practically abandoned over a major part of the world. China which clung to silver for a very long time eventually gave it up, and Hong Kong, followed its lead, also abandoned it later. China left the silver standard on November 3, 1933 and Hong Kong, five days later.

Bimetallism

Under bimetallism two metals, usually gold and silver, are simultaneously used for the coinage of the standard money. Both gold and silver coins are unlimited legal tender and the mint is open to both the metals. Both are minted alike into coins of similar names and denominations. The coins of one metal are convertible into the coins of another metal at a fixed rate. The essentials of bimetallism are : the existence of two kinds of standard money of two different metals ; the opening of the mint for both of them which are unlimited legal tender ; and the inter-convertibility of both of them at a fixed rate.

Bimetallism was once adopted in several countries of the world, but it was soon abandoned by them because a fixed ratio between the value of the two coins could not be maintained. If the supply of silver increased considerably, it became cheaper in terms of gold : one gold coin began to command more than the fixed number of silver coins. If the quantity of gold, on the other hand, increased appreciably, which was a rare occurrence, opposite results followed. On such occasions Gresham's Law² operated and bad money tended to drive good money out of circulation³

²See Section 3 below.

³The chief arguments of bi-metal'ists are : (a) that the joint production of both metals would not vary so much as that of either of them ; (b) that the dual system would tend to steady prices ; and (c) that the supply of gold is insufficient for the currency requirements of all the countries of the world if universal monometallism were adopted. These arguments have not outweighed the following proved

The system was adopted by France in 1803 with the express purpose of preventing the country from a shortage of money in case the supply of one metal was drastically curtailed. What happened in actual practice was that the metal whose supply was increasing considerably and which was, therefore, cheaper of the two, alone remained in circulation; so that practically there was monometallism at any particular time. Thus as between 1803 and 1870, for about fifty years, France had a silver standard and for twenty-seven years, gold standard. France abandoned bimetallism in 1870.

The Limping Standard

The limping standard, or the limping bimetallism, is a partial form of bimetallism. Under the limping standard two metals, usually gold and silver, are unlimited legal tender but only one of them, invariably gold, is open to free coinage. This system existed in the United States of America and France before the Great War of 1914-18.

§ 2. VALUE OF MONEY AND ITS FLUCTUATIONS

Meaning of the Value of Money

Just as the value of all the commodities and services is measured in terms of money, similarly the value of money is measured in terms of *goods and services in general*. By value of money economists mean the amount of *goods and services in general*¹ which one unit of money can purchase; in other words, its *general purchasing power*.

Value of Money and General Price Level

The amount of *goods and services in general* which one unit of money can purchase has been called above the value of money. The money price of one unit of *goods and commodities in general* is called the *General Price Level*.

disadvantages of the bimetallic system: (a) the great difficulty of maintaining the mint ratio between the metals in face of constant fluctuations in the market ratio; and (b) the operation of Gresham's Law in driving from circulation the underrated metal as soon as the Market prices diverge from the mint ratio, resulting in an alternating coinage of gold and silver.

4 "*Goods and services in general*" is not very expressive. It refers to that group of commodities and services which represents the entire mass of commodities and services. This is called the "representative datum." The value of money is measured in terms of this composite mass.

J. M. Keynes, however, maintains that the concepts of "*goods and services in general*" and its counterpart "*General Price Level*" are unreal myths. See Keynes, *A Treatise on Money*, Volume I, Chapter VI.

General Price Level varies inversely with the value of money : if one rises the other falls. It can be explained with reference to wheat which is being sold, say, at 2 seers a rupee. If the value of a rupee goes up to 4 seers of wheat, what happens to the value of wheat ? It goes *down* : formerly it was 8 as. a seer but now it is only 4 annas a seer. In the same way it can be shown that if the value of money goes down, then value of wheat shoots up. What is true of the value of wheat is also true of the value of goods and services in general, i. e., *general price level*.⁵

In the words of J. S. Mill, the value of a thing is what it will exchange for; the value of money is what money will exchange for—the purchasing power of money. If prices are low, money will buy much of other things and is of high value; if prices are high, it will buy little of other things and is of low value. The value of money varies inversely with general prices; falling as they rise, and rising as they fall.

Appreciation and Depreciation in the Value of Money

The value of money, like that of any other commodity, is subject to fluctuations. A rise in the value of money (i.e., its purchasing power) is known as *depreciation*; and a fall, as *appreciation*.

Suppose the value of money in terms of wheat was 4 seers a rupee on 1st April, 1945. If on 6th April, 1945, one unit of money can purchase 5 seers of wheat, its value has *appreciated*; on the other hand, if it can purchase only 3 seers, its value has *depreciated*.

Depreciation must not be confused with *deterioration* or *debasement*. *Deterioration* means reduction in the metallic content of a coin through wear and tear; and *debasement* signifies deliberate reduction in the metallic content of the coin or in the fineness of the metal. *Depreciation*, on the other hand, means a decrease in the value of money as a result of variations in the demand for and supply of money.

Inflation, Deflation and Reflation

The volume of currency should be determined with reference to the legitimate demand for currency in the country. If this is not done and the supply of currency exceeds, or falls short of, the demand for it, grave repercussions are likely to follow.

Sometimes it so happens that the Government deliberately increase the volume of currency in a period of financial stringency

⁵J. S. Mill, *Principles of Political Economy*, p. 229.

till it exceeds the legitimate currency requirements of the country. *Such an abnormal and deliberate increase in the volume of currency in excess of the legitimate demand for it, is called inflation.* Inflation depreciates the value of money and raises the general price-level. During the Great War I, many countries inflated their currency. The inflation in Germany was so tremendous that the value of Reich-mark became lower than the value of the paper on which it was printed. It was called 'hyperinflation.'

Deflation refers to the contraction of currency to such an extent that it falls short of the demand for it. Deflation appreciates the value of money and depresses the general price-level. After the Great War I, many countries deflated currency considerably.

The post-War deflation had to be corrected 'by a policy of controlled inflation with a view to tone up the depressed world economy. *An expansion of currency with a view to correct the effects of past deflation, is often termed as reflation.*

Effects of Appreciation and Depreciation

The appreciation and depreciation of currency cause uncalled for fluctuations in the value of money and price-levels, and distort and damage the economic mechanism by disturbing the even basis of trade and industry, and by benefiting some classes at the expense of others. These effects can be discussed under three heads: (a) effects on industrialists and businessmen; (b) effects on consumers; and (c) effects on debtors and creditors.

Effects of Inflation or Depreciation of Money or Rising Prices. (a) During the period of rising prices, *industrialists make huge profits.* Their (money) cost of production remains more or less the same, and even if it rises, it rises very slowly, while the prices shoot up tremendously. Large profits are, therefore, earned. This is also the period of rapid industrial expansion as the profits earned are invested in industries by the industrialists. High profits may lead to speculation which entails much loss when the inevitable crash comes. *Businessmen* also earn increased profits as people have money in their pockets and purchase goods freely. The period of inflation, thus, coincides with high profits, industrial expansion, increased employment and general prosperity. (b) *Debtors gain and creditors lose.* Debtors pay to their creditors the exact amount of money they had borrowed (plus interest); but the prices having gone up, this amount cannot purchase as much goods and services as it could when the loan was given. Creditors, therefore, get less purchasing power than what they had parted with. (c) *Consumers suffer* to the extent that they are required to pay higher prices than

before. Industrialists and others, whose incomes increase due to rising prices, do not mind it, but the workers, capitalists and landlords whose incomes are fixed, suffer since their income loses a part of its purchasing power.

Effects of Deflation or Appreciation of Money or Falling Prices. The effects of falling prices are just the reverse of those described above. (a) The profits of the *industrialists* shrink and depression sets in. As people do not have sufficient money, they reduce their purchases, and factories have, therefore, to be closed down. The outlook becomes pessimistic and unemployment increases. (b) *Creditors gain while debtors lose.* Debtors pay the amount of money that they had borrowed but as the prices are low at the time of payment, they pay more than what they had borrowed in terms of goods and services. (c) *Consumers benefit* as they pay for the goods they consume lower prices than before. This is particularly true of labourers, landlords and capitalists whose incomes are fixed and do not shrink; but not so much of industrialists whose incomes are considerably reduced.

§ 3. GRESHAM'S LAW

Now we come to an interesting monetary law, known as *Gresham's Law*. During the reign of Queen Elizabeth, English coins had either deteriorated through wear and tear or had been debased by unscrupulous persons. Now coins were issued over and over again to improve the matters but they disappeared as soon as they made appearance. The Queen sought the advice of Sir Thomas Gresham in the matter. Sir Thomas opined that *bad money always drives good money out of circulation*; and currency could be improved only by withdrawing all the bad coins from circulation. *The tendency of bad money to drive good money out of circulation is known as Gresham's Law.*

Scope of the Law

This law is applicable in the following three cases :—

(1) *If coins of the same metal but of varying weight, or quality, or both, circulate together at the same nominal value, the worse coins will tend to drive the better ones from circulation.* The good coins disappear because some of them are kept back from circulation or hoarded, while others are melted down, exported or fraudulently depreciated in weight. Most men although they gain nothing by it, have a lurking inclination to keep a brand new coin and give out the depreciated or debased coin when both have the same value. Those who hoard money prefer good coins for hoarding since their metallic content is greater than that of bad coins. Those who want to melt coins, similarly prefer the good coins for the same reason. Again,

those who want to pay foreigners, export good and full-weighted coins, and not bad ones, because foreigners value coins according to their weight. Finally, fraudulent persons, with very slight risk of detection and with certain profit to themselves, clip and sweat the newer coins so as to reduce them to the general level of those in circulation.

(2) *If coins of two precious metals be circulated at a fixed ratio of exchange with one another, the over-valued metal (at the mint) will tend to drive the under-valued metal from circulation.* Suppose in a country two kinds of coins are current—'G', gold coins, and 'S', Silver coins at the mint rate of $1G = 10S$. Suppose the market value of gold and silver changes in such a manner that the market value of these coins becomes $1G = 15S$. In this case, then, the mint over-values the silver coin and under-values the gold coin. Consequently, gold coins will disappear from circulation and will be hoarded or melted or exported.⁶

(3) *If an inconvertible paper currency be issued in excess of the normal requirements of the country, it will tend to drive precious metals from circulation.* An abnormal increase in the amount of inconvertible paper currency, which is obviously bad money, tends to drive metallic coins, which are good money, from circulation. Metallic coins are either exported or hoarded or melted down.⁷

Limitations of the Law

The Law has three limitations :—

(1) It is applicable to standard money whose face value is equal to its intrinsic value, and to paper currency only. It is not applicable to token coins. Since the face value of the token coins is higher than their intrinsic value, they are bad coins as against standard coins. But there is no competition between the standard and token coins since they satisfy altogether different types of currency demands. As such, though token coins are bad coins, they do not displace standard coins.

6 A very good illustration of this type is provided by the Japanese currency at the time of the treaty of 1858 between Great Britain, United States of America and Japan. The most valuable Japanese coin was *Koban*. It was passing current in Japan for four silver *Itzibus*, but was worth in English money about 16s. 5d : whereas the silver *Itzibus* was equal only to about 1s. 4d. Thus the Japanese were estimating their gold money at about one-third as estimated according to the relative values of the metals in other parts of the world. The earliest European traders trebled their money by buying up the *Koban* at the *native* rate and selling it abroad, until the *natives*, perceiving what was being done, withdrew from circulation the remainder of gold. See Laughlin, *Principles of Money*, for such interesting historical examples.

7 Exports of metals, it may be noted, take place automatically. Abnormal increase in the volume of currency raises prices all round. Other countries find it profitable to sell their goods in this country, resulting in an export of precious metals to pay for the imports of goods. The ensuing scarcity of coins encourages hoarding, thus reducing the stock of gold in circulation drastically.

(2) If the total currency of the country does not exceed her normal and legitimate requirements the law will not operate ; since coins, good, bad or indifferent, are needed for circulation, the value of each coin as coin will be higher than its value as bullion. But if the total currency exceeds the legitimate requirements, good coins will be withdrawn to the extent of the excess.

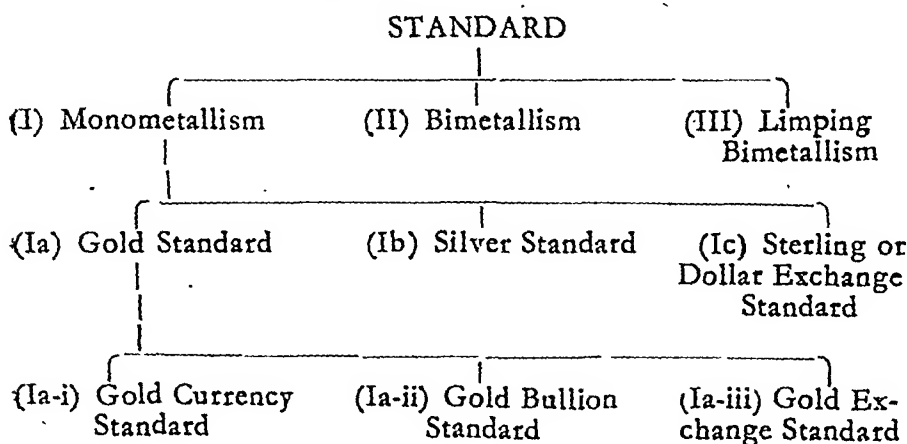
(3) Bad money will fail to drive good money out of circulation in case the community as a whole refuses to accept and to circulate bad money for exchange purposes in view of its worthlessness.

Appendices to Chapter 49

Appendix I

GOLD STANDARD

In the preceding pages, we have described the chief types of the monetary standard. The following table gives a detailed classification of monetary standards :



This classification is not very exhaustive, but it serves our purpose quite well. We have already discussed Monometallism, Bimetallism, and Limping Bimetallism, and shall now study the sub-divisions of Gold Standard and the Sterling (or Dollar) Exchange Standard.

Gold Standard

The gold standard is a monometallic standard in which only

¹ A more scientific and complete classification will be to put all these standards under the genus, *External Standards*. The following *Internal Standards* may then be added to the table : Tabular Standard, Labour Standard, and Cost Price Equilibrium Standard. For a thorough classification, see B. R. Shenoy, *op. cit.*

gold coins are declared to be the standard coins, open to free coinage and being unlimited legal tender. Whether gold coins are in actual circulation or not, is not a material point. The currency notes are convertible into some declared form of gold. The gold standard is based on the implication that the value of the monetary unit shall be kept equal to the value of a given quantity of gold.² This is done by unlimited purchase and sale of gold at a fixed price.

The gold standard is of three types : gold currency standard, gold bullion standard and gold exchange standard.³

(i) *Gold Currency Standard.* Under the gold currency standard, the gold coins are put into actual circulation. Currency notes are convertible into these gold coins. It was essentially a pre-War reality when people believed that the existence of gold coins in circulation was an indispensable characteristic of gold standard. This idea has now been abandoned.

The technique of this standard is that the contents of the gold coin is fixed by law, and by the device of free coinage, the value of the coin and of the fixed amount of gold are kept at a parity. If at any time the value of coins in terms of gold goes up, or, what comes to the same thing, the value of gold in terms of coins goes down, people bring gold for coinage till the original parity is restored. On the other hand, if the value of coins in terms of gold goes down, or, what comes to the same thing, the value of gold in terms of coins increase, people begin to melt gold coins till the original parity is restored.

(ii) *Gold Bullion Standard.* Gold currency standard is an expensive standard since it requires the digging out of gold and its coinage. A more economical type of gold standard was, therefore, devised by monetary experts, which guaranteed the convertibility of currency notes into gold bullion, rather than gold coins, at a fixed rate. The gold currency thus disappeared and the national resources involved in coming the yellow metal were saved.

Under this standard the monetary authority is always prepared, on the one hand, to convert at least one important kind of money into uncoined gold at a fixed rate, and, on the other hand, to buy coined gold or money at a fixed rate.

²A gold standard denotes a state of affairs in which a country keeps the value of its monetary unit and the value of a defined weight of gold at an equality with one another. Robertson, *Money*, Chapter IV, Section 1

³In discussing the gold standards and its off-shoots, much material of my article *Pure and Applied Economics in India* (*Mysore Economic Journal*, Volume 24, No. 11, 1938) has been incorporated herein.

(iii) *Gold Exchange Standard.* Gold bullion standard is an improvement over the gold currency standard, inasmuch as it avoids the trouble and expense of coinage, but labour has still to be spent in digging out gold. A still more economical standard has, therefore, been evolved which dispenses with the use of gold still further. For internal purposes, gold coins and bullion are not available from the monetary authority. For making payments to foreign countries, however, gold (or foreign currency) is available from the said authority at a rate fixed in terms of the currency of another country which has a gold standard (gold currency or gold bullion standard). Thus, before September, 1931, when England was on gold standard, the Indian rupee was linked to the British currency at the rate of Re. 1 = 1s. 6d. Gold could not be had in exchange of rupees for internal purposes; but for making foreign payments, gold (or foreign currency) was available at the rate of 1s. 6d. We then had gold exchange standard.

Under this standard, therefore, the currency of a country is not directly linked to gold but is indirectly based on it through the medium of the currency of some other country which has a direct gold standard. And by free purchase and sale of gold (or foreign currency or foreign exchanges) the monetary authority keeps the rate of exchange near about the fixed parity.

Sterling (or Dollar) Exchange Standard

We have described above three types of one form of mono-metallic standard, namely, the gold standard. We shall now discuss sterling (or dollar) exchange standard. The silver standard has already been discussed.

If the currency of a country is linked to the currency of Great Britain or the United States of America or any other country, and the latter is not on gold, then we have the sterling or dollar or any other exchange standard.

For instance, before 1947 the rupee was linked to the sterling and the latter was off gold. We had, therefore, the sterling exchange standard in India at that time.

Gold exchange standard and sterling exchange standard are often confused even by responsible writers. Students should clearly understand that in both of the standards, i.e., gold exchange standard and sterling exchange standard, the value of currency of one country is fixed in terms of that of another; but in the first case the latter currency is on gold standard, while in the second case it is off gold.

Appendix II

QUANTITY THEORY OF MONEY

Quantity Theory of Money¹

The value, or purchasing power, of money depends in the first instance on the demand for and supply of money.

Supply of Money. The supply of a commodity means the quantity offered for sale. But it is not usual to speak of offering money for sale. This, however, is merely an accident of language. The money with which people are offering to buy things and services is money offered for sale. The supply of money then is the quantity of it which people are wanting to lay out : that is, all the money they have in their possession, except what they are hoarding, or at least keeping by as a reserve for future contingencies. The supply of money, in short, is all the money *in circulation* at the time.

The Demand for Money. The demand for money consists of all the goods offered for sale. Every seller of goods is a buyer of money, and the goods he brings with him constitutes his demand for money.

Now suppose the supply of money has increased and, other things remaining the same, prices have risen. The rise in prices will be in the ratio in which the quantity of money had increased. If money in circulation were doubled, prices would be doubled. If the quantity of money were to be reduced to half, prices would also decline to the same extent. As such the value of money, other things remaining the same, varies inversely as its quantity.⁵

Quantity Theory of Money. This is the celebrated Quantity Theory of Money. It states that every change in the quantity of money in circulation produces, *other things being equal*, a directly proportional change in the general price level or a reverse proportional change in the value of money. If you increase or decrease the quantity of a commodity, its value will certainly fall or rise but not *proportionately*. In the case of money, however, if you increase or decrease its quantity, the change in its value will be proportionate, provided other things are equal.

Other Things Being Equal. This is an important phrase and means that this theory holds good only under certain hypothetical conditions. They are given below :

¹A detailed statement of theory is not given here. Those who want to make a detailed study are advised to consult Chablaní, *Indian Currency, Banking and Exchange*, Chapter II or Thomas, *Elements of Economics*. This theory has been criticized on various grounds and substitutive theories have been propounded, e. g., the Cambridge Formula and the Keynesian Formulas. See J. M. Keynes. *A Treatise on Money*, Volume I, Book III, and *A Tract on Monetary Reforms*.

⁵J. S. Mill *Principles of Political Economy*, Book III, Chapter VIII.

(1) *Volume of Trade.* The volume of trade determines the amount of money required by the country ; in other words, it determines the demands for money. The theory assumes that the value of trade remains the same. If it increases somehow, each unit of money will begin to be exchanged for more goods and services than before and its value will increase in spite of an increase in its quantity, and *vice versa*.

(2) *Credit Instruments.* Credit instruments sometimes act for money and serve their purpose very well. The quantity of credit has the same relation to the general price level as money. The theory assumes that the supply of credit instruments remains the same.

(3) *Velocity of Circulation.* A coin exchanges for goods and services a number of times and does the work of many coins and notes. Thus if a rupee is used for 100 transactions during a month, it has done the work of 100 rupees. The number of times a coin circulates is known as its "velocity". The effective quantity of money is equal to the actual quantity of money multiplied by its velocity. Changes in the velocity have the same effect on price level as changes in the quantity of money. The theory presumes that velocity remains the same.

The Equation. These relations have been expressed by Professor Irving Fisher as below :

If P = General Price Level.

M' = Quantity of money in circulation.

M' = Quantity of credit money in circulation.

V = Velocity of M

V' = Velocity of M' ,

$$\text{then, } P = \frac{MV + M'V'}{T}$$

$$\text{or, } PT = MV + M'V'$$

The theory assumes that T , V , M' and V' remain unchanged. Now if you increase M , P will rise proportionately, and *vice versa*. The value of money depends upon its quantity : hence the name Quantity Theory of Money. In this sense this theory becomes an obvious truism.

Appendix III

MEASUREMENT OF THE VALUE OF MONEY

Value of money is an abstract concept and cannot be measured directly.⁶ But the general price level, or a composite price of things

⁶ It cannot be directly measured because the composite character of the "general goods and services" makes their unitisation difficult and in many cases meaningless.

in general, which varies inversely with variations in the value of money, lends itself to easy measurement. General price level is measured by *General Price Index Numbers*. The general price level in a standard year is taken to be 100. Similar numbers for other years are calculated indicating a rise or fall, as the case may be, in the general price level. *These numbers which are meant to show variations in the General Price Level are known as General Price Index Numbers*. If the General Price Level rises, it is presumed that the value of money has proportionately fallen; and *vice versa*.

Constructions of Index Number. Price index numbers are constructed as below : (1) A list of goods and services is made such that they may reflect the variations in prices in goods and services in general. (2) A period, normal in character, is taken to be the basic period and serves as a standard for comparisons. (3) Prices for the period concerned are collected from representative localities at regular intervals and are averaged. The average gives the price of the commodity during the period concerned. (4) The price of a commodity during the basic period is taken to be 100, and the percentage price for the same commodity in the period concerned is found out by the simple rule of three. This is done with regard to each commodity. (5) All the percentage prices are then added up and divided by the number of items. This gives the *Index Number* for the period.

QUESTIONS

1. What do you understand by monetary standard? Give a suitable classification of monetary standards.
2. Describe monometallism, bimetallism.
3. Write an article on Gold Standard.
4. Differentiate between gold currency standard, gold bullion standard, and sterling exchange standard.
5. Explain what do you understand by value of money. Show how the value of money is determined.
6. Discuss the quantity theory of money.
7. What are index numbers and what is their significance? Describe the method of their construction.
8. Explain appreciation, depreciation, inflation and deflation.
9. Lay down the effects of inflation and deflation.
10. What is Gresham's Law? Show its scope. Does it have any limitations?

EXAMINATION QUESTIONS

U. P., Int. Arts.

1. Fully state and explain Gresham's Law. (1951, 1950, 1949, 1943, 1941).
2. Write a note on Gold Standard. (1950)
3. Write a note on Gold Bullion Standard. (1948)
4. Write a short note on Monometallism and Bimetallism. (1946)

U. P., Board

5. What is a monetary standard? Distinguish between a gold standard, a gold bullion standard, a gold exchange standard, and a sterling exchange standard. Answer with special reference to India. (I. A., 1945)

6. Explain clearly the difference between good and bad money, and show how the latter drives the former out of circulation. Are there any limitations to this law? (I. A., 1945)

U. P., Int. Com.

7. "Bad money drives good money out of circulation". Discuss it as fully as you can. (1951)

8. Write a short note on Gresham's Law. (1942)

9. (a) Differentiate between Legal Tender and Token Coins and between convertible and inconvertible paper money. (b) What are the advantages of metallic money over convertible paper money? (1941)

(10) Write a short notes on Quantity Theory of Money, Gresham's Law and Gold Exchange Standard. (1940)

Raj, Inter. Arts

11. Explain the meaning of the term Gresham's Law and the remedies prescribed in such currency situations. (1948)

12. What do you mean by saying that a country has "gold standard". How does it differ from a "Gold Exchange Standard" and a "gold bullion standard"? What is the present standard of value in India? (1944)

13. Write a note on Gresham's Law. (1942)

Patna, Int. Com.

15. Write a short note on Gold Standard. (1948s)

16. Explain how and why bad money drives good money out of circulation. Under what conditions can the two circulate side by side? (1948)

17. Give the essential features of (a) gold currency standard, and (b) gold exchange standard (1948)

18. Explain clearly the difference between (a) Standard and Token Coins (b) Good and Bad money. (1948)

Banaras, Int. Arts.

19. Write a short note on Gresham's Law. (1947)

Sagar, Inter. Arts

20. What is Gresham's Law? In what various circumstances does the Law operate? (1949)

21. Write a short note on Gold Exchange Standard (1949 Supp.)

22. Write a short note on Gold Standard (1949 Supp.)

23. How is the paper money managed in India? (1949 Supp.)

24. Give the fundamentals of Gold Currency Standard. How does it differ from Gold Exchange Standard? (1948)

Andhra, Inter. Arts

25. Write notes on: (a) Gresham's Law and its limitations, (b) Gold Exchange Standard. (1949)

Poona, Inter. Arts

29. What do you understand by Gold Standard? Explain its different forms. (1949)

26. Discuss the merits and defects of the Sterling Exchange Standard in India. Differentiate between a cheque and a bill of exchange. (1947, Nagpur)
Nagpur, Int. Com.

27. Discuss the merits and demerits of Sterling Exchange Standard in India. Differentiate between a cheque and a bill of exchange. (1947)

28. Fully explain Gresham's Law. (1941)
Nagpur, Inter. Arts

30. Explain :

(a) Standard money, (b) Token money, (c) Legal Tender. What are the qualities of standard money ? (1950)

31. Examine the Quantity Theory of Money and state how far the theory can be modified ? (1950)

32. Discuss the different types of gold standard explaining the advantages as well as disadvantages. (1950)
Travancore, Int.

33. State and explain Gresham's Law. Consider its application to paper currency. (1943)

34. Why do prices rise and fall ? Briefly account for the present rise of prices in India. (1943)

35. Discuss the economic consequences of changes in the value of money on (a) business men ; (b) wage earners ; (c) men with fixed incomes. (1943)
Punjab, Inter.

36. What are the consequences of a fall in the value of money ? Illustrate your answer. (1949)

37. Write a note on Gresham's Law. (1949)
Delhi, Higher Secondary

38. Discuss how the value of money is determined. Has the value of money in India changed during the last one year ? If so, indicate the nature of the change. (1951)

39. What do you understand by the value of money ? How is the value of money determined ? (1950)

40. Since the outbreak of the World War II the general price level in India has moved upward. What is the approximate rise in price level ? Give your explanation for the rise. (1950)

41. Describe the causes and consequences of the rise of prices in India during the last war. (1948)

INDIAN CURRENCY SYSTEM

Today sterling is dancing to the tune of the dollar which, again, owing to the peculiar situation of the gold market, the recalcitrance of the courts and the contributions, the mutual contrariety of the economic policies implicit in the New Deal and its offshoots, and, lastly the vicious circle of the steadily mounting gold stocks financed out of enormous dollar loans, is almost a derelict currency in spite of its firmness and is managed, not by the "24 hours basis" Morgenthau, but by uncontrollable external forces over which America has no influence. In this currency medley, I believe, India can, to a very large extent, insulate her economy from the repercussions of international economic disequilibria by pursuing an independent monetary policy—B. P. Adarker (1938).

§ 1. INTERNAL CURRENCY

The currency system of India, as of any other country, consists of metallic currency and paper currency.

Metallic Currency

The most important metallic coin is the *rupee*. It is the principal money of the realm, and is unlimited legal tender. Hence it may be called the standard money of India. But unlike standard money, its intrinsic value is less than its face value and it is not open to free coinage. In these respects, it partakes the nature of token money. It is, as such, neither wholly the standard money nor wholly the token money. It is best described as the *Token Standard*. When we say that the rupee is the token standard, we mean that though in coinage it is just like a token coin, it does perform the functions of the standard coin all the same. *Eight-anna silver coins* are also unlimited legal tender, but they are not standard coins. Then there are *4-anna*, *2-anna*, *1-anna pieces*, made of silver or nickle, which are limited legal tender. *Pice* and *pie* are other subsidiary coins.

Since all the metallic coins are token coins, the minting of each coin yields a profit. All this profit was hitherto used to create a Gold Standard Reserve, of which we shall presently know more.

Paper Currency

Before the second World War, the Indian paper currency consisted of notes of rupees 5, 10, 50, 100, 1,000, and 10,000. During the war 1-rupee and 2-rupee notes were added to circulation; and since January 1946, 500-rupee 1,000-rupee and 10,000-rupee notes have been withdrawn and declared illegal tender. Hence at the present time (January, 1946) notes of Re. 1, Rs. 2, Rs. 5, Rs. 10,

Rs. 50 and Rs. 100 are current. These notes (except the first two) are promissory notes convertible into silver rupees on demand. They were formerly issued by the Government of India, but since the enactment of the Reserve Bank of India Act in 1933 issue has now been entrusted to the Reserve Bank. However, 1-rupee notes and 2-rupee notes are, issued by the Government of India. When the issue was in the hands of the Government, the profit on paper issue was used to create a Paper Currency Reserve. But now this practice has been stopped because the issue is now made by the Reserve Bank.

The Paper Currency Reserve and Gold Standard Reserve were divided into gold portion and silver portion. The former was kept with the Secretary of State in London and the latter with Government of India. These reserves were used to maintain exchange ratio at 1s. 6d. But since the inception of the Reserve Bank of India, both these reserves have been brought together and the total gold stock is held by this Bank.

§ 2 THE ISSUE OF INDIAN PAPER CURRENCY

Now we will give a brief description of the paper currency system in India. It is easy to print a bank note; but the holder of a bank note is entitled to demand cash in its exchange. Hence the note-issuing authority always keeps a certain percentage of the total value of notes issued in its reserve, so that it could convert into cash such notes as are presented for the purpose. Hence it is important to know about the existing system of note-issue in India. It will, however, be useful to first study the systems which were adopted prior to the existing system.

Old Systems of Note Issue

Till 1934, the Government themselves used to issue notes.

Prior to 1861, currency notes were issued by the Presidency Banks of Madras, Bombay and Calcutta. The maximum issue was fixed, and a metallic reserve of 33 per cent was kept.

In 1861, the Government themselves took over the right of issuing paper currency. Notes of Rs. 4 crores were to be issued against securities; but beyond that figure, a cent per cent metallic reserve had to be kept. In 1893, the amount of notes which could be issued against securities was raised from Rs. 4 crores to Rs. 14 crores and in 1914 to Rs. 20 crores. During the first World War this figure was pushed up to Rs. 120 crores when Re. 1 and Rs. 2½ notes were also issued without any metallic backing.

The Babington-Smith Committee recommended a 40 per cent reserve against the entire note issue and the maximum limit of notes issued against securities was fixed by them at Rs. 130 crores. They also suggested that in a busy season an emergency currency may be issued against the export bills of exchange. The Government accepted these recommendations with the only difference that the percentage of the metallic reserve was fixed at 50 per cent instead of 40 per cent as recommended by the Committee.

The Present Method of Issue

With the enactment of the Reserve Bank Act, the paper currency in India has entered on a new phase. According to this Act, the sole right of issuing notes has been vested in the Issue Department of the Reserve Bank. The Issue Department is quite separate from the Banking Department and the sole liability of the former is with regard to the notes issued. The assets of the Issue Department must be equal to the value of the total notes issued. The relevant provisions regarding assets behind the notes are as below.⁴

(1) Of the total amount of assets, not less than 40 per cent shall consist of gold coins, gold bullion or sterling securities (provided that the amount of gold coins and gold bullion shall not at any time be less than 40 crores of rupees in value).

(2) The remainder of assets shall be held in rupee coins, Government of India rupee securities and certain specified kinds of bills and promissory notes (with certain limitations on the amount of Government of India Securities).

(3) Of the gold coins and gold bullion held as assets, not less than 17/20th shall be held in India.

The present system of note issue is safe as well as elastic. Its most prominent feature is the issue of notes by the Reserve Bank on the proportional reserve system—a gold reserve of 40 p. c. is kept against the entire issue.

This 40 p. c. reserve is not irreducible minimum. If the Reserve Bank feels the need of issuing more currency but has not got adequate gold to satisfy 40 p. c. requirement, this percentage can be reduced on the payment of a tax.⁵

⁴Reserve Bank of India Act 1934; Sec. 33.

⁵The Reserve Bank Act provides that in respect of period during which the holding of gold coins, gold bullion or sterling securities (*i.e.*, gold reserve) is reduced below 40 p. c. the bank shall pay a tax upon the amount by which such holding is reduced below 40 p. c. of the aggregate value of notes issued. This tax shall be equal to the bank rate for the time being in force with an addition of 1 p. c. per annum when such holding exceeds 32 p. c. of the total amount of the assets and further 2 p. c. per annum in respect of every further decrease of 2 p. c. or part of such decrease.

Comparison with the Old System of Issue

Before the establishment of the Reserve Bank of India, the paper currency was issued by the Government of India. The Government of India used to increase or decrease the amount of currency according to its own requirements. The interest of the business community was not always taken in consideration. The Imperial Bank was, however, allowed to ask the currency authorities to increase the currency to the extent of 12 crores of rupees only, on the security of prescribed hundis and other securities whenever there was monetary stringency.

The present system is an improvement over the old system in the following respects :

1. For the first time in India, a Bank has been given the sole right of note issue. It is an admitted fact that the State is an inefficient agency for the note-issuing function. Due to the following reasons the present Bank issue is superior to the old State issue : (a) The need for currency varies from time to time and in varying proportions. A Government cannot possess an accurate knowledge of such changes in the demand because not being in direct touch with the conditions in the financial, commercial and industrial world, it is not sensitive to these variations. As such, it cannot adjust the supply of paper currency to the demand for it. This is not so in the case of a Central or Reserve Bank which remains in constant touch with various sections of the business community. (b) The real danger involved in the issue of paper by a Government consists in the fact that "political considerations and the pecuniary needs of the State rather than considerations of a sound monetary economy are likely, sooner or later, to become the determining factor. There will be a risk of excessive consequent depreciation."¹ These two considerations, one economic and one political, explain why the present system is an improvement over the old system.

2. Our paper currency has now become elastic⁷. Under the old arrangement the paper currency could be increased to the extent of Rs. 12 crores only. But under the present system there is no limit to the extent of possible extension. For every Rs. 40 worth of gold reserve kept by the Bank, it can issue Rs. 100 worth of notes. This provision will itself provide sufficient scope for elasticity. But in case there is need for more currency while the reserve is low, can

⁶See Kisch and Elkin, *Central Banks*.

⁷Elasticity of currency implies the capacity of currency to increase, or decrease as demand for it increases, or decreases, and to the extent to which it increases or decreases.

be reduced on the payment of certain taxes. And the reduction the 40% figure can go on indefinitely and the gold reserve can even drop down to zero.

§ 3. EXTERNAL CURRENCY : MONETARY STANDARD IN INDIA

How should the external value of the rupee should be fixed this problem has been a subject of considerable debate during the last 50 years or so. During the British Period, the Government kept the value of rupee in terms of sterling fixed ; and for this, the British Government were severely criticized. Apart from this, the rate at which the Indian rupee was pegged with sterling was not to India's advantage. This condition continued till 1947. In 1947, the value of rupee was fixed in terms of gold. Other countries of the world also fixed the value of their own currency in terms of gold. As such, the old connexion between the rupee and the sterling was broken ; and direct relationship of the rupee with every other currency in the world was established. In other words, an international monetary standard was established.

International Standard

After the World War II, the different countries of the world resolved to co-operate with each other in matters of international importance. In order to secure international co-operation in monetary affairs, they set up an institution known as International Monetary Fund which has its offices in Washington. The I. M. F. asked every country to fix the value of its currency in terms of gold. Accordingly, India fixed the value of her rupee in terms of gold. Other countries of the world did the same thing. The gold value of the Indian rupee was fixed at such a level that one rupee was equal to 1s. 6d. of the English currency, a rate prevailing since 1924. But now Indian rupee came in direct relationship with currencies of the other countries of the world. Before 1947, the the external value of Indian rupee was fixed only in terms of sterling only ; and value in terms of other currencies was calculated through sterling, such rates being called *Cross Rates*. But this is no longer the case now. India has the value of her rupee fixed in terms of currencies of all the foreign countries directly, through the gold contents of respective currencies. This monetary stand is called International Monetary Standard.

! Sterling Exchange Standard

As stated above, before 1947 the external value of the rupee was fixed in terms of sterling. So long as sterling was convertible into gold, and this was the case up to 1931 we had gold exchange

standard. But when sterling ceased to be convertible into gold, we had sterling exchange standard.¹ From 1934 to 1947, the rupee could be converted into sterling at the rate of 1s. 6d. The method in which this ratio was maintained is quite interesting. The various methods tried from time to time are given below :

(1) The sale of Council and Reserve Council Bills, which were paid out of the Paper Currency Reserve and Gold Standard Reserve, was the first method to be adopted. Details about this method are given below in § 4. It has long been abandoned.

(2) The method of the purchase and sale by the Government of India of sterling bills in Indian market, was next adopted after superseding the above policy. But this has also been abandoned because of the inception of the Reserve Bank of India.

(3) Since the establishment of the Reserve Bank of India, the obligation of maintaining the ratio has been put on its shoulders. According to the Reserve Bank Act, Section 40, "The Bank shall sell to any person who makes a demand in that behalf at its office in Bombay, Calcutta, Delhi, Madras and pays the purchase price in legal tender currency, sterling for immediate delivery in London, at a rate not below one shilling and five pence and forty-nine sixty-fourths of a penny for a rupee ; provided that no person shall be entitled to demand or buy an amount of sterling less than ten thousand pounds". Section 41, similarly, states, "The Bank shall buy from any person who makes a demand in that behalf at its office in Bombay, Calcutta, Delhi, or Madras, sterling for immediate delivery in London, at a rate not higher than one shilling and six pence and three sixteenths of a penny for a rupee ; provided that no person shall be entitled to demand or sell an amount of sterling less than ten thousand pounds ; provided further that no person shall be entitled to receive payment unless the Bank is satisfied that payment of the sterling in London has been made." The Reserve Bank tries to maintain the ratio between these set limits.

Problems of Standard and Ratio

Before 1947, there were two foremost monetary problems before the country :

- (i) Which monetary standard should be adopted by India ; and
- (ii) If India had to keep the sterling nexus, then what should be ratio of exchange ?

But now the old conditions have disappeared. Instead of having direct relationship with Great Britain alone, India has now direct monetary relationship with every other country in the world. We

have the authority to determine the rate of exchange of the rupee, subject to the approval of the I. M. F., just as every other country can do. As such the above two problems are now only of historical interest.

§ 4. HISTORY OF INDIAN CURRENCY

I. 1835-1893: The Silver Standard

Before the year 1835, there were about one thousand coins of different varieties and weight in circulation in this country issued by various Hindu and Mohammedan rulers. This bewildering multiplicity of coins greatly hampered trade. Therefore in 1835 the East Indian Company made the present rupee of 180 grains of silver; 11/12ths fine, as the standard coin of the realm. Mints were opened to the free coinage of silver on the payment of mintage. A full-fledged silver standard was, thus, established.

The price of silver began to fall from 1873 onwards due to the opening of new and very productive silver mines in America. The gold value of the rupee, which was normally two shillings, ultimately reached the one-shilling level. It upset the even basis of trade; in particular, it drastically curtailed imports from foreign countries. The British officials in India also suffered in the matter of remittances to England, because each rupee could now be exchanged for rs. only instead of 2s. as before. The Government of India had to pay annual Home Charges to Great Britain in sterling and, in terms of rupees, their commitments became almost double. The question was, therefore, referred to the Herschell Commission, whose Report was published in 1893.

II. 1893-1898: Breakdown of the Silver Standard

In accordance with the recommendations of the Herschell Commission, mints were closed to the unrestricted coinage of silver in 1893 and the Government ceased to coin fresh rupees. The result was that as soon as circumstances pushed up the demand for currency, the value of the rupee also rose. In 1898 its value touched the level of 1s. 4d., the rate fixed by the Herschell Report as ideal. The Fowler Committee was then appointed in 1898 to consider what further steps should be taken.

III. 1898-1914: Gold Exchange Standard¹

The Fowler Committee suggested that the exchange value of rupee should be fixed 1s. 4d.; that the British Gold Sovereign should be made legal tender and current coin in India; that the Indian mints should be thrown open to the unrestricted coinage of gold. The

¹See *Appendix I* to the previous chapter.

committee virtually recommended the establishment of the gold currency standard. The Government accepted these recommendations but did not put them in practice. The gold mint was not set up. Gold sovereigns were introduced but they soon came back to the treasuries. The Government policy gradually gravitated towards a new system which neither the Fowler nor the Herschell Commission had ever contemplated. This was the *gold exchange standard*.⁹ The value of the rupee was based at 1s 4d. and kept thereabout by the purchase and sale of Council and Reverse Council Bills. (a) *Council Bills*. When the balance of trade was favourable to India and the demand for rupee bills in London was considerable, there was the fear that the value of rupee will go beyond 1s. 4d. To prevent such a rise, the Secretary of State for India sold Council Bills in London at the rate of 1s. 4d. *plus* a fraction not more than the cost of transporting gold from England to India. These Council Bills were sent by British debtors to Indian creditors who encashed them at Government treasuries. In this way the possible increase in the exchange value of the rupee beyond 1s. 4d. was checked. (b) *Reverse Council Bills*. When the balance of trade was unfavourable to India and there was great demand for sterling bills in India there was the fear that the rate of exchange will fall below 1s. 4d. To prevent such a fall, the Government of India drew Reverse Council Bills on the Secretary of State for India and sold them in India, at 1s. 4d. *minus* a fraction not exceeding the cost of transporting gold from India to England. In this way the possible fall in the exchange value of the rupee much below 1s. 4d. was checked. By the technique of the Council and Reverse Council Bills the exchange value of rupee was stabilized nearabout 1s. 4d.

The currency policy of the Government was put to serious criticism by the people of the country, particularly the advocates of the gold currency standard. The Government, therefore, appointed the Chamberlain Commission in 1913 which blessed the gold exchange standard and recommended its continuance.

IV. 1914-1918 : The War Period

The Report was in the hands of the Government shortly before the Great War I broke out. During the first years of the war, people

⁹This system has been designated by some writers as the Gold Exchange Standard. Others headed by Dr. L. C. Jain, have called it Gold Sterling Standard. (See C. L. Jain, *The Monetary Problems of India*, p. 89). Perplexed by this sort of difference among the authorities on this subject, some writers state, "Thus was established the Gold Exchange Standard or as some people choose to call it, the Sterling Exchange Standard" (R. N. Mathur, *Introduction to Money, Exchange and Banking*, p. 128). In fact, the standard was Gold Exchange Standard. For a discussion of this topic, see my article, *Pure and Applied Economics in India*, *Mysore Economic Journal*, Vol. 24, No. 11, 1938.

lost confidence in the Government. Deposits were withdrawn from the Post Office Savings Banks and currency notes were presented to the Government for conversion into gold, so much so that the Government were obliged to suspend the issue of gold. There was also a huge demand for exchange remittances. Fortunately, the situation soon came under control and confidence was restored. After 1915, however, the situation became seriously critical. Exports from India to the Allies increased tremendously while imports from them shrank, with the result that the balance of trade turned substantially in our favour. Moreover, heavy expenditure was incurred in India on behalf of the British Government which gave rise to claims on the latter. In the beginning the Council Bills were issued to meet the demand at 1s. 4d. a rupee, but very soon the issue of the bills became so tremendous that the Government of India found it difficult to encash them. They were indeed in great trouble for they could not import gold or silver for coinage purposes economically and safely. The value of silver, in fact, had increased so much that people found it profitable to melt the rupee and to sell it as bullion. No other course was left to the Government but (a) to restrict the scale of Council Bills, which were sold at increasingly high rates, and (b) to issue notes of the denominations of rupee 1 and rupees 2½ as fiduciary issue. Evidently, then, the pre-War system of stabilisation by selling Council Bills and Reverse Council Bills in unlimited quantities at a fixed rate of exchange, broke down. The Government now sold Council Bills only in limited quantities and at rates which were shooting up frequently. Exchange was allowed to rise from 1s. 4d. in 1914 to 2s. 4d. in 1918.

V. 1919-1925: The Babington-Smith Committee

After the war was over, Government appointed the Babington-Smith Committee to advise on the future policy of India exchange and currency. The Committee recommended the re-introduction of gold exchange standard. In fact, their ultimate ideal was the gold currency standard and, therefore, they recommended that the sovereign should be made legal tender at the rate Rs. 10=1 sovereign (Rupee 1=2s.). The high ratio of two shillings was recommended, for the Committee believed that the high price of silver had come to stay.

The anticipations of the Committee were, unfortunately, completely upset by the turn which the events took. The value of silver fell and the balance of trade became unfavourable to India. The Britishers who had made war profits in India, began to remit them to England at this favourable rate of exchange. Indian debtors also hurried to pay their British creditors. Such a heavy demand of sterling caused the value of the rupee in terms of sterling to fall.

The value of the rupee could not be maintained at 2s. gold (which was equal to 3 shillings sterling). Attempts were then made to hold it at 2 shillings sterling but only failure was in store. And in 1922 the Government had to refuse to sell the Reverse Councils. The exchange was left to find its own level.

VI. 1926-1931 : The Hilton-Young Comm'ssion

In 1924 the ratio came to be stabilized at 1s. 6d. ; and in 1925 the Government appointed the Hilton-Young Commission to advise the lines of the future currency policy. The Commission recommended the adoption of the gold bullion standard at 1s. 6d. ratio, and the purchase and sale of gold by the State with certain qualifications.¹⁰

The Government adopted these recommendations and an Act was passed which imposed legal obligation on the Government to buy gold, and to sell gold or, at the option of the Government, sterling. The standard actually adopted by the Government was neither the gold bullion nor the gold exchange standard but a hotch-potch standard becoming one or the other at their sweet will under the stress of the circumstances.

VII. 1931-1947 : Sterling Exchange Standard

In 1931, England went off the gold standard. Indian rupee continued to be wedded to the British sterling at 1s. 6d ; but as sterling was no longer convertible into gold, Indian monetary standard began to be called *Sterling Exchange Standard* in place of Gold Exchange Standard.

Establishment of the Reserve Bank of India During this long period of Sterling Exchange Standard, two important events took place. One of them was the establishment of the Reserve Bank of India. The Reserve Bank Act was passed in 1934 and the Bank began to function in 1935. The function of the note issue was taken over by the Reserve Bank of India from the Government of India. Scheduled banks were required to keep a certain portion of their liabilities as deposit with the Reserve Bank of India. In this way, the Reserve Bank could keep some control on other banks. This institution began to control both money and credit. Gold Standard Reserve and Paper Currency Reserve were both handed over to the Reserve Bank of India. Reserve Bank was made responsible for keeping the external value of rupee at or nearabout 1s. 6d.

¹⁰ The essence of the proposal was "that the ordinary medium of circulation in India should remain as at present the silver rupee, and the stability of the currency in terms of gold should be secured by making the currency directly convertible into gold for all purposes, but that gold should not circulate as money. It must not circulate at first and it need not circulate ever".

World War II. World War II was the second important event of this period. The World War II broke out in 1939 and ended in 1945. The World War I witnessed considerable disturbance in the currency affairs of India ; but during the period of the World War II, this did not happen. Some important events of this period are set out below :

1. *Increase in the Demand for Rupee Coins.* After the outbreak of the World War II, many persons began to convert bank notes into rupee coins. This resulted in an increase in the demand for rupee coins. Later, the volume of trade increased to such an extent that the demand for rupee coins was pushed up still further. As such during this period, the Government had to put into circulation rupee coins worth Rs 149 crores.

2. *One-rupee and Two-rupees Notes.* The above-mentioned step was not adequate to meet the whole demand for currency. Hence, the Government themselves issued notes in one-rupee and two-rupee denominations ; and they are still current.

3. *Exchange Control.* Foreign Currency is often called Foreign Exchange. During the period of a war, the supplies of foreign goods become very scarce ; and every care has to be taken to ensure that only very urgent commodities needed by the military and civilians are imported. Hence the Government made a law that anybody receiving foreign currency (dollars, sterling, etc.) by exporting goods should deposit it with the Reserve Bank of India ; and anybody who wants to import goods from abroad, should obtain the necessary foreign exchange from the Reserve Bank. The Bank could refuse foreign exchange in any particular case if it thought that the imports concerned were not urgently needed. This system began to be called *Exchange Control*. This system still continues and it has considerably benefited the country.

4. *Demonetization.* The Government of India promulgated an Ordinance on January 12, 1946, whereby bank notes of the denomination of Rs 500, Rs 1,000 and Rs 10,000 were declared to be illegal tender. Holders of such notes were asked to exchange them for other notes of smaller denominations by 26th January ; but at the time of surrendering the big notes, they had to indicate the source from which they received these notes. The idea was to punish those who made large profits in black markets during the war.

VIII. After 1947 : International Standard

After the World War II, the various countries of the world established an International Monetary Fund with a view to co-operate with each other in monetary matters. India joined this Fund as a member. On April 8, 1947, India broke her connexion with sterling

and fixed its external value in terms of gold. Other countries did the same thing. As such, the external value of rupee is now directly fixed in terms of all other currencies of the world through the medium of gold. This is International Monetary Standard. The external value of rupee, at the present time, in terms of sterling is 1s. 6d.

Devaluation. In 1949, another very important monetary event took place. England devalued her pound in terms of dollar by 30%. India had to be either with sterling or with dollar. India decided to keep company with England. In other words, rupee was devalued in terms of dollar by 30%. Hence even after devaluation, the external value of rupee in terms of sterling is the same 1s. 6d as before. But its value in terms of dollar has declined; or the value of dollar in terms of rupees has increased. Formerly a dollar was equal to Rs 3-5-0 but now it is equal to Rs. 4-12-0.

§ 5. EXISTING CURRENCY PROBLEMS

The war gave rise to some serious currency problems which are still persisting. They are briefly discussed here.

Inflation

During the period of the war, huge volumes of currency were put into circulation. British Government and Allies purchased large quantities of goods, and the Government of India themselves purchased war materials in bulk. People received payment for the supply of these goods, and the volume of currency increased. This resulted in high prices of civilian goods all along the line. Had there taken place an increase in production simultaneously, prices would not have risen so high. But this was not accomplished to the desired degree. In certain months, the Government introduced paper currency at the staggering rate of Rs. 1 crore or more per day. The consequence was that persons with fixed incomes, and particularly poor and middle class persons, had to suffer seriously. Their incomes failed to purchase adequate quantities of goods because of high prices, and their standard of living went down. Many a hardship has been suffered by these persons; and what they could not consume was sent to feed the military in India and abroad. By raising prices, inflation encouraged black-marketeers and profiteers, and this further aggravated the situation.

The following table gives some idea about the inflationary situation in India during the last few years.

Year	Annual Absorption of Currency, Rs. Cr.	General Index of Wholesale Prices: (1939=100)
Average for 5 yrs. (1914-15 to 1918-19)	40	
Average for 7 yrs. (1939-40 to 1945-46)	183	
1946-47	31	
1947-48	34	308
1948-49	= 12	376
1949-50	= 6	385
1950-51	87	410
1951-52		455

It is clear from the above table that in the post-war period, the Government could withdraw from circulation nominal amounts of currency only in two years. Otherwise every year, they had to put into circulation fresh currency. The consequence of this large amount of currency was that prices continued to rise. If wholesale prices are taken to be 100 in 1939, they went up three times in 1947-48; and increased four times only three years later. In 1950-51, retail prices must have risen further still.

The Government have not been able to check inflation. The Government of India announced its anti-inflationary programme in October 1948. They intended to reduce Government expenditure and step up production. But these efforts have not yet succeeded.

Sterling Balances

Another important development has been that whereas before the war we were indebted to Britain, the situation is now just the reverse. As Britain increased her purchases of war materials in this country, she began to become our debtor to that extent. She asked us to regard this sum as the repayment of the debt we owed to her. In a very short time, our entire indebtedness to Britain was liquidated. But Britain continued to make purchases rather heavily. She could not pay us anything in return because she was occupied with the war. Hence she wrote promissory notes whereby she promised to pay us the money for which she purchased goods. These promissory notes are known as *Sterling Securities*.

Sterling Securities as Backing to Bank Notes. These sterling securities have been used by the Reserve Bank as backing to paper currency. Under the Reserve Bank of India Act, sterling securities can be maintained to the extent of 40% of the total value of notes issued. But this limit was allowed to be exceeded by law. Today, sterling securities constitute over 90% of the backing. This is an important war-time development which is bound to remain in existence for some time to come.

Repayment of Sterling Balances. The Sterling Balances are gradually being re-paid to India in accordance with agreements entered into between India and Britain. The first agreement between India and Britain was made in August 1947. The second agreement was entered into in February 1948; and a third in July 1948. The fourth agreement has now been concluded.

TEST QUESTIONS

1. Describe the present currency system in India.
2. Discuss the present method of note issue followed in this country. How does it compare with the old system?
3. What is the existing monetary standard in India? How does it differ from the Sterling Exchange Standard?
4. Give a brief history of the Indian currency system.
5. State briefly the monetary events that took place in India during the period of Sterling Exchange Standard.
6. What are the important monetary problems that were created in India during the period of the World War II?
7. What is inflation? Discuss the existing inflationary situation in India.
8. Write an essay on Sterling Balances.

EXAMINATION QUESTIONS

U. P. Inter. Arts

1. What is paper money? What are its merits? How is paper money issued in India? (1949)
2. Describe the existing arrangements for the issue and the regulation of paper money in India. In what respects are they an improvement over the earlier system? (1948)
3. What is a coin? Where is it made? How does English system of coinage differ from the Indian system? (1945)

U. P. Board

4. What are the advantages of paper money? How is its convertibility maintained in India? (I. A., 1942)
5. Discuss the existing arrangements for the issue and regulation of paper currency in India. In what respects are they an improvement over the earlier system? (I. A., 1938)
6. Explain what is meant by 'monetary standards'. By what name is the 'monetary standard' obtaining in India called, and why? Show how it functions. (I. A., 1934)

U. P., Inter. Com.

7. What is the present position of the rupee ? How is its value determined and maintained ? (1946)

8. What is the present system of issue of paper money in India ? How far is it better than the previous systems ? Describe. (1945)

9. Draw up a scheme for improving the currency system of this country. (1940)

10. Give a short description of monetary system in India. (1936)

Raj., Inter. Arts.

11. Write a note on Paper Currency Reserve of India. (1941)

Rajputana., Inter. Com.

12. Give a brief sketch of the Indian currency system. (1941)

Nagpur., Inter. Arts

13. Write a note on 'Proportional Reserve System of Issue.' (1948)

14. Write a note on Indian Paper Currency Reserve. (1947)

Nagpur., Inter. Com.

15. Write a note on Indian Paper Currency Reserve. (1947)

Travancore., Inter.

16. What are the different ways of regulating the note issue of a country ? Do you think the present system of note issue in India to be satisfactory ? (1943)

Punjab., Inter.

17. Write a short note on Demonetization. (1949)

18. Write a short note on Sterling. (1949)

Delhi., Higher Secondary

19. Write short notes on (a) Sterling Balances, and (b) Devaluation of the Rupee. (1951)

20. Write a note on the present currency authority in India. (1950)

21. Explain briefly the functions performed by the Rupee in India. Is it necessary to have rupee coins when the one-rupee note is in circulation ? (1949)

22. Give a brief history of the monetary system of India from 1919 to 1939. (1948)

CREDIT AND CREDIT INSTRUMENTS

Credit is a consequence not a cause ; 'tis the oil of the wheel, the marrow of the bones, the blood in the veins, and the spirit in the breast of all Trade and Commerce in the world—*Defoe*.

§ 1. CREDIT

Meaning and Definition of Credit

The word 'credit' has various meanings and is used in a variety of senses. It has an economic sense, a business sense, an accounting sense and a general sense.

(a) *Its Economic sense.* We usually speak of a cash transaction and a credit transaction. By cash transaction we mean a transaction in which cash is paid at the time of the purchase of a commodity or service. Credit transaction, on the other hand, implies a transaction in which the payment of cash is postponed for a future date. In this sense, which is the economic sense of the term, *credit implies the postponement of payment*. Jevons aptly describes credit as 'nothing but the deferring of a payment'.

(b) *Its Commercial Sense.* In commercial parlance, the word 'credit' generally signifies the financial reputation of a businessman or a business house. Credit of a businessman is based on (i) his business ability and (ii) his honesty. If the credit of a businessman is good, he can borrow large sums, a privilege denied to a man of little or doubtful credit. This implication of the word 'credit' is closely related to its economic sense.

(c) *Its Accounting Sense.* Accountants use the word credit to mean the right-hand side of a ledger account.

(d) *Its General Sense.* Credit, in ordinary language, also means 'trust or 'praise.'

It is, of course, the economic sense of the term 'credit, which is of special importance to the students of Economics and in which it is habitually used by economists.'

¹Credit has been defined by various writers in different ways. For instance, *McCord* speaks of credit as the present Right to a Future payment. *L. W. Alras* calls credit as 'the lending of capital'. *Carlo F. Ferrares* regards credit as 'the whole of those economic conditions because of which men consent to make payments in the present on the promise of repayment in the future'.

Essentials of Credit

Credit involves three essentials :

(1) *Exchange or Transfer of Value.* The exchange or transfer of something valuable from one party to the other is an essential element of credit. Unless some goods or services have been transferred by one party to the other, the question of the postponement of payment (*i. e.*, credit) cannot arise.²

(2) *Time.* Time is involved in credit. In other words, every credit transaction involves futurity. It is, of course, the postponement of payment to a future date which makes a transaction 'credit' transaction. If the payment is made immediately it will become a cash transaction, pure and simple.

(3) *Confidence.* The most important and basic element of credit is confidence. Unless one has confidence (a) that the borrower is carrying on a profitable business in an efficient way, so that he would have the wherewithal to pay back the money at a future date : and (b) that he is *honest* and would be willing to pay back his liability when he is able to do so, one would not grant credit. Confidence, which is based on the economic and moral qualities of the borrower, is the fundamental basis and the most important element of credit.³

Importance and Utility of Credit

The importance of credit in the present age is too obvious to need detailed discussion. If you carefully see all around you, you will find that in every walk of economic life credit plays a vital part. The retailer purchases goods from the wholesaler on credit. The wholesaler, in his turn, gets credit from the manufacturer. The manufacturer, again, gets capital, raw materials, etc., on credit. In this way the entire economic structure is bound together by the string of credit. That is why the failure of one firm is often the forerunner of the failure of other firm operating in similar and dissimilar business fields alike. Large scale production, which is one of the most remarkable characteristics of the present age, has been made possible by credit in a very definite sense. Again, *credit institutions (i. e., banks)* and *credit instruments (i. e., written evidences of credit transactions which are used more or less like coins and currency notes such as cheques and bills of exchange)* are vital

²Some text-book writers mention *amount* as an element of credit instead of *exchange*. The word *amount* is, however, vague, inexpressive and of doubtful meaning, and in my opinion it should not be used in the present context.

³The element of confidence is so important that 'credit' is now applied by some writers to that belief in a man's probity and solvency which will permit of his being entrusted with something of value belonging to another, whether that something consists of money, goods, services or even credit itself as when one man entrusts to another the use of his good name and reputation—S. E. Thomas, *Elements of Economics*, p. 433.

constituents of the economic structure of a country. The importance of credit can, therefore, be easily realised.

The main advantages of credit are the following :

(1) *Credit gives rise to credit instruments* which serve the purpose of metallic currency. This is advantageous in three respects : (a) Credit instruments constitute a *cheaper medium of exchange* than metallic coins. (b) Credit instruments are *more convenient* than metallic currency. For instance, a cheque of Rs. 100 can be easily written, but the counting of coins worth Rs. 100 and the ascertaining that they are all genuine, takes much time. (c) Metallic coins cannot fully meet the *currency requirements* of the present-day society and credit instruments fill the gap with great efficiency.

(2) A natural corollary of the foregoing utility of credit is that it makes the *transmission of money to distant places cheap and easy*. If you have to pay your creditor at Madras Rs. 1,000, you can send silver coins ; but much time, labour and money, will be saved if you send him just a bank draft¹ of that amount.

(3) *It makes possible the collection of unspent part of the incomes of the people*. Banks mobilize the financial resources which might remain idle otherwise, by offering attractive rates of interest. The habit of thrift is thus inculcated in the masses.

(4) The vast reservoir of capital formed by collecting tiny streamlets of personal savings is allowed to flow out into the hands of entrepreneurs with brain and acumen but without adequate capital for carrying on business. Thus *credit encourages production*. Not only this ; by enabling payments to be postponed till it is convenient for the borrower to make them, it also diminishes difficulty and hardship.

(5) *Credit minimises price fluctuations*. When a boom is imminent and prices are looking up, a check on credit expansion is likely to keep price stable. On the other hand, if a depression is about to set in and prices are going down, an expansion of credit might prevent its occurrence. Again, when trade is reviving slowly after a period of depression, gradual and systematic expansion of credit may be expected to bring up the prices to the pre-depression level.

(6) *Credit enables governments to obtain funds* with which to meet emergencies when no other means are available for the purpose.

(7) *Credit enables individuals to tide over temporary financial difficulties*. For instance, it makes possible the purchase of goods for consumption purposes pending the receipt of income.

¹A Bank Draft is, in simple language, a letter given by one bank office to its own branch or Head Office or correspondent situated at some other place instructing it to pay a definite sum of money to the person named therein.

Dangers of Credit

Credit, which is the source of so many benefits and advantages, is also attended with some dangers. Credit is subject to human control; and if that control is not exercised with caution and intelligence, grave repercussions are likely to follow. The main dangers are the following :

(1) *The liability of credit to be issued in excess* is its most important disadvantage. The issue of credit is a profitable job—the larger and more numerous the loans a banker gives, the more the interest it earns; and the larger the credit a businessman allows, the higher the sales he makes. As such, there is always the danger of its being over-issued beyond the legitimate business requirements. The danger becomes particularly great during the time of business prosperity when unwise credit expansion often leads to excessive zeal, over-production and speculation. To safeguard against this danger, the institution of Reserve or Central Bank has been devised.

(2) *Credit may enable a man of doubtful ability to start a speculative and unprofitable business*, only to ruin himself and others who have granted him considerable credit. Again, a businessman may continue a losing business with the help of borrowed capital. He may in this way disguise his financial weakness and increase his financial commitments only to make the consequences of his eventual failure more wide-spread and disastrous. Fortunately, people have become alive to his danger and a thorough investigation at the time of giving credit is found to be a dependable safeguard.

(3) *Credit enables consumers to obtain money which they often squander away recklessly* and become financial wrecks. In our own country, a fair share of the rural indebtedness is the result of the borrowing of money for consumption purposes.

(4) *Modern credit organisation leads to the formation of monopolies and combinations and to central control*, which use unfair methods of competition to crush their competitors, increase prices and exploit labourers. This danger is sought to be checked by laws against unfair competition and combination.

§ 1. CREDIT AND CAPITAL

Whether credit is capital or not, is an oft-debated point. There has been some difference of opinion among economists on the subject; and though the controversy is of a theoretical nature and has therefore now been relegated to the background, it has not been made absolutely free from the fog of confusion. 'Capital', as we have already studied, is that part of wealth which is used for further production of wealth. To decide then, whether credit is capital or not, two questions arise :

constituents of the economic structure of a country. The importance of credit can, therefore, be easily realised.

The main advantages of credit are the following :

(1) *Credit gives rise to credit instruments* which serve the purpose of metallic currency. This is advantageous in three respects : (a) Credit instruments constitute a *cheaper medium of exchange* than metallic coins. (b) Credit instruments are *more convenient* than metallic currency. For instance, a cheque of Rs. 100 can be easily written, but the counting of coins worth Rs. 100 and the ascertaining that they are all genuine, takes much time. (c) Metallic coins cannot fully meet the *currency requirements* of the present-day society and credit instruments fill the gap with great efficiency.

(2) A natural corollary of the foregoing utility of credit is that it makes the *transmission of money to distant places cheap and easy*. If you have to pay your creditor at Madras Rs. 1,000, you can send silver coins ; but much time, labour and money, will be saved if you send him just a bank draft¹ of that amount.

(3) *It makes possible the collection of unspent part of the incomes of the people*. Banks mobilize the financial resources which might remain idle otherwise, by offering attractive rates of interest. The habit of thrift is thus inculcated in the masses.

(4) The vast reservoir of capital formed by collecting tiny streamlets of personal savings is allowed to flow out into the hands of entrepreneurs with brain and acumen but without adequate capital for carrying on business. Thus *credit encourages production*. Not only this ; by enabling payments to be postponed till it is convenient for the borrower to make them, it also diminishes difficulty and hardship.

(5) *Credit minimises price fluctuations*. When a boom is imminent and prices are looking up, a check on credit expansion is likely to keep price stable. On the other hand, if a depression is about to set in and prices are going down, an expansion of credit might prevent its occurrence. Again, when trade is reviving slowly after a period of depression, gradual and systematic expansion of credit may be expected to bring up the prices to the pre-depression level.

(6) *Credit enables governments to obtain funds* with which to meet emergencies when no other means are available for the purpose.

(7) *Credit enables individuals to tide over temporary financial difficulties*. For instance, it makes possible the purchase of goods for consumption purposes pending the receipt of income.

¹ A Bank Draft is, in simple language, a letter given by one bank office to its own branch or Head Office or correspondent situated at some other place instructing it to pay a definite sum of money to the person named therein.

This statement needs a word of caution. Credit transfers capital ; but it may transfer only wealth. Take the case of Mr. X who gives a loan of Rs. 200 to Y for consumption. In this case wealth is transferred from X to Y. Credit thus transfers wealth in this example, not capital. It must not, therefore, be supposed that credit always transfers capital ; it may also transfer wealth.

Does Credit Create Capital? Sometimes credit creates capital. Sometimes a man possessing a certain amount of wealth has no use for it. It is not capital to him. He might give it on loan to another man who might use it productively. In such a case credit converts wealth into capital, or creates capital.

Credit Mechanism

In these days of enormous credit and efficient organisation, a well-organised credit mechanism has been set up to make credit arrangements easy, convenient and safe. Its two important constituents are : (a) *Credit instruments* which are the written evidences of credit transactions, *e. g.*, Bills of Exchange, Promissory Notes, etc., and (b) *Credit institutions, i. e.*, Banks which receive deposits and lend money to the borrowers.

§ 2. CREDIT INSTRUMENTS

Meaning

In modern society, credit transactions are evidenced by written documents containing an undertaking to pay a definite sum of money. They are known as credit instruments. The important credit instruments are promissory notes, bank notes, bills of exchange, cheques and *hundis*.

Credit Instruments and Money

Credit instruments are given and accepted in discharge of debts just like money; but there are certain points of difference between money and credit instruments : (1) Money is always legal tender : a debtor can legally compel his creditor to accept it in due discharge of debt. Credit instruments, however, do not enjoy this privilege. (2) Because of the legal tender character, money is *generally acceptable*. A shop-keeper accepts rupee coins from the buyer because he knows that others would unhesitatingly accept them. This is not the case with credit instruments. A person accepts a cheque or a *hundi* from another only if he is confident that the cheque or the *hundi* will be duly honoured. In the absence of this certainty, he will refuse to accept it. Credit instruments are, therefore, only *especially acceptable*. (3) Finally, credit instruments are written undertakings to pay *money* and must necessarily be different from money. They are, in a limited sense, substitutes for money.

We shall now discuss the chief forms of credit instruments.

(i) Is credit wealth ?

(ii) Is it used for further production of wealth ?

(i) We have defined credit as *postponement of payment*; it is an abstract concept. In this sense, we cannot say that credit has utility, or is scarce or is transferable ; in fact, the statement does not seem to make sense. To argue it differently, we want credit not for its own sake, but for the sake of the things and services that we can acquire if we are given credit. Hence credit in itself has no utility. Hence credit is not wealth.

(ii) As credit is not wealth, it cannot be capital. Hence the second question does not arise. Our conclusion, therefore, is that credit is not capital.

Is a Credit Instrument Capital? This is the next question which automatically arises at this stage. Now, a credit instrument does not satisfy a want directly : we do not want a credit instrument for its own sake. But since a credit instrument enables us to acquire things which possess utility, we want credit. Now since a credit instrument does not satisfy a want, we cannot say that it is wealth. If it is not wealth, it cannot be capital. Credit instruments, then, do not constitute capital.

Credit Helps in the Creation of Further Capital. But while credit or a credit instrument does not in itself count as capital, it certainly helps to create capital.

Credit Transfers Capital. The true function of credit is to transfer capital from one person to another. If A gives credit to B, then A gives up the use of the purchasing power and B acquires the right to use that much of purchasing power. If you give me a loan of Rs. 200, you forego the use of Rs. 200 and I acquire the right to use it. In this sense, then, credit is said to transfer capital. "Credit," according to Ricardo, "does not create capital, it only determines by whom capital should be employed". Similarly Mill said that "Credit being only the permission to use the capital of another person, the means of production cannot be increased by it but only be transferred."

For instance, let us assume that some resources are lying idle. Later they are given on credit to a producer who might bring the idle resources into action and may thus augment capital. Here we can say that credit augments capital. But it does not necessarily create capital in all cases.

Our conclusions, therefore, are that (i) credit is not capital ; (ii) a credit instrument is not capital ; (iii) credit serves to transfer wealth or capital ; and (iv) credit does not necessarily increase capital.

Bill of Exchange

Definition. A bill of exchange is legally defined as an instrument in writing containing an unconditional order signed by the maker, directing a certain person to pay a certain sum of money only to, or to the order of, a certain person, or to the bearer of the instrument. In simple words, a bill of exchange is an order from a creditor to the debtor to pay a certain sum of money to himself or to a specified person or to the bearer.

Parties to a Bill. There are three parties to a bill of exchange—the drawer, the drawee and the payee. The person who draws or makes the bill, *i.e.*, the creditor, is called the *drawer*; the person on whom the bill is drawn, *i.e.*, the debtor, is called the *drawee*; while the person who is authorised in the bill to receive the payment is known as the *payee*.

Demand and Time Bills. A bill of exchange may be payable on demand when it is known as Sight or Demand Bill, or it may be payable after a specified period when it is known as Time or Usance Bill. In the case of Time Bills, three days of grace are added to the specified time in order to arrive at the due date. No such days of grace are allowed in respect of Demand Bills. Time Bills must pay an *ad valorem* stamp duty which is not charged on Demand Bills.

Acceptance. A time bill, after it is properly written, is presented to the acceptor for his acceptance. He accepts it by writing the word, accepted on the face of the bill with his signature below it. After acceptance a bill becomes a *pukka* document binding on the acceptor. It is then known as Acceptance. The following is an example of a bill of exchange.

<p style="text-align: center;">Rs. 700</p> <div style="border: 1px solid black; width: 150px; height: 80px; margin: 10px auto; display: flex; align-items: center; justify-content: center;"> <p>Stamp</p> </div> <p style="text-align: center; margin-top: 20px;">To</p> <p style="text-align: center;">The Krishna Press, Allahabad.</p>	<p style="text-align: right;">Allahabad. April 15, 1952.</p> <p style="text-align: center;">Two months after sight of this bill, pay to me or my order the sum of rupees seven hundred only for value received.</p> <p style="text-align: right;">For Kitab Mahal, Allahabad, S. Niwas, Proprietor.</p>
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This bill has been drawn by the Kitab Mahal, (the drawer) on the Krishna Press, (the drawee). Kitab Mahal is specified as the payee. The bill will be accepted by the drawee by writing the word "Accepted" with his signatures across the face of the document.

Promissory Notes

Definition. A promissory note has been legally defined as an instrument in writing (not being a bank note or a currency note), containing an unconditional undertaking, signed by the maker, to pay a certain sum of money only to, or to the order of, a certain person or to the bearer of the instrument.

Parties to a Promissory Note. There are two parties to the promissory note: (a) the person who makes and signs the note and thereby undertakes to pay, called the *maker*; and (2) the person to whom money is to be paid, called the *payee*.

Demand and Time Promissory Notes. A promissory note contains a promise to pay money either on demand when it is called a Demand Promissory Note, or after some time when it is described as a Time Promissory Note.

The notes issued by the Reserve Bank are promissory notes but they have been specifically excluded from the legal definition of the term. Promissory notes, other than Bank notes or Currency notes, are written on stamped papers, the value of the stamps being *ad valorem*, i.e., it varies according to the value of the document. The following is an example of a promissory note:

<div style="border: 1px solid black; width: 150px; height: 80px; margin: 0 auto;"></div> <p>Stamp</p>	<p>Rs. 300 only.</p>	<p>Allahabad. July 13, 1952.</p>
<p>Two months after date, I promise to pay to Messrs Ramji Lal Shyamji Lal & Co., or order, the sum of Rupees three hundred only, for value received.</p>		
<p>For Narayan Press, (Sd.) G. P. Tiwari.</p>		

Bank Notes and Currency Notes

Bank notes or currency notes are promissory notes, as they contain the promise of the Government or the Central Bank to pay a certain sum of money on demand to the bearer of the instrument. If a note is issued by the Government, it is known as Currency Note; but when it is issued by the Central Bank, it is known as the Bank Note. Bank or currency notes, though credit instruments, are, in fact, money since they are always legal tender. As such, notes differ from other forms of credit instruments in all the respects in which money differs from them.

Bill of Exchange

Definition. A bill of exchange is legally defined as an instrument in writing containing an unconditional order signed by the maker, directing a certain person to pay a certain sum of money only to, or to the order of, a certain person, or to the bearer of the instrument. In simple words, a bill of exchange is an order from a creditor to the debtor to pay a certain sum of money to himself or to a specified person or to the bearer.

Parties to a Bill. There are three parties to a bill of exchange—the drawer, the drawee and the payee. The person who draws or makes the bill, *i.e.*, the creditor, is called the *drawer*; the person on whom the bill is drawn, *i.e.*, the debtor, is called the *drawee*; while the person who is authorised in the bill to receive the payment is known as the *payee*.

Demand and Time Bills. A bill of exchange may be payable on demand when it is known as Sight or Demand Bill, or it may be payable after a specified period when it is known as Time or Usance Bill. In the case of Time Bills, three days of grace are added to the specified time in order to arrive at the due date. No such days of grace are allowed in respect of Demand Bills. Time Bills must pay an *ad valorem* stamp duty which is not charged on Demand Bills.

Acceptance. A time bill, after it is properly written, is presented to the acceptor for his acceptance. He accepts it by writing the word, accepted on the face of the bill with his signature below it. After acceptance a bill becomes a *puke* document binding on the acceptor. It is then known as Acceptance. The following is an example of a bill of exchange.

Rs. 700 <div style="border: 1px solid black; width: 150px; height: 80px; margin: 10px auto; display: flex; align-items: center; justify-content: center;"> Stamp </div>	<div style="text-align: right; margin-bottom: 10px;"> Allahabad. April 15, 1952. </div> <p style="margin-bottom: 10px;">Two months after sight of this bill, pay to me or my order the sum of rupees seven hundred only for value received.</p> <div style="text-align: right; margin-bottom: 10px;"> For Kitab Mahal, Allahabad, S. Niwas, Proprietor. </div> <p style="margin-top: 20px;">To, The Krishna Press, Allahabad.</p>
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This bill has been drawn by the Kitab Mahal, (the drawer) on the Krishna Press, (the drawee). Kitab Mahal is specified as the payee. The bill will be accepted by the drawee by writing the word "Accepted" with his signatures across the face of the document.

Inland and Foreign Bills. A Bill of Exchange is used not only in respect of inland dealings but also in respect of international dealings. The former type of bill is called the *Inland Bill* and the latter the *Foreign Bill*. Foreign Bills render an important service to the business community. If metallic coins were to be used for paying foreign creditors, two difficulties will arise: Firstly, foreigners will refuse to accept coins on their face value since they are not current in their own country. They will accept them only as bullion. Secondly, much time, labour and money will be wasted in shipping coins from country to country. These difficulties are solved by the use of Bills of Exchange. The London creditor may just draw a bill on his Calcutta debtor and sell it in London to a man who has to make payment to his Bombay creditor. The London creditor thus gets his money immediately from a Londoner. The latter sends this bill to his Bombay creditor who presents it to the Calcutta debtor (the drawee) and receives payment from him. Thus accounts are settled without a single pie being shipped from either country.

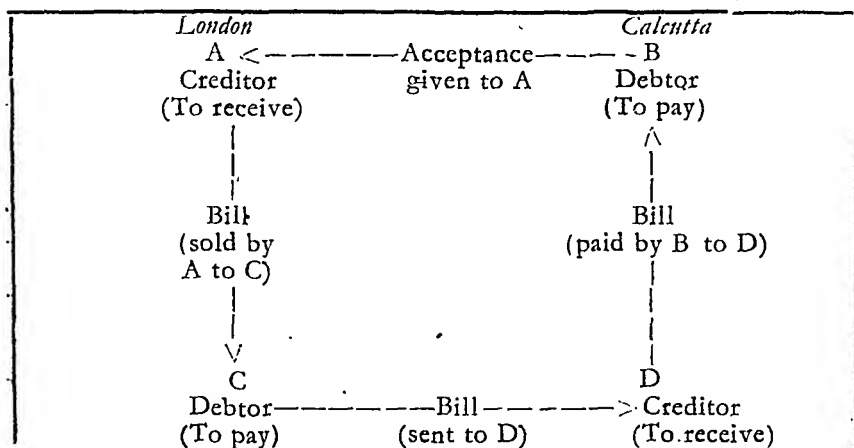
The diagram given below shows how accounts are settled.

Bill of Exchange

Note

(1) It has three parties—draw-
wer, drawee and payee.

(1) It has only two parties—
issuer and payee.



It is the balance of the mutual indebtedness of the two countries which alone has to be liquidated by shipping metal or coins.

A Bill of Exchange and a Note

A bill of exchange differs from a currency or bank note in significant respects :

- | | |
|---|---|
| (2) It is an order to pay. | (2) It is a promise to pay. |
| (3) It requires acceptance by drawee. | (3) It does not require acceptance. |
| (4) It may be issued by anybody. | (4) It is usually issued by the Government or the Central Bank. |
| (5) It is not legal tender and is not a part of currency. | (5) It is legal tender and is a part of currency. |
| (6) It may be demand or time. | (6) It is always demand. |
| (7) It cannot be re-issued. | (7) It can be re-issued. |
| (8) It is not subject to special restrictions (except those imposed by the Negotiable Instruments Act). | (8) It is issued under special Act. |
| (9) It is very important in making foreign payments. | (9) It is not so important. |
| (10) A bill may be drawn in a set of three. | (10) It is not so drawn. |

Cheque

Definition. A cheque is an instrument containing an unconditional order drawn signed by the depositor directing his banker to pay on demand a definite sum of money to himself or to the person named therein or to the bearer of the cheque. Legally it has been defined as a bill of exchange drawn on a specified banker, and not expressed to be payable otherwise than on demand. In other words, *a demand bill of exchange drawn on a banker is known as cheque.*

When a depositor opens a current account with a bank, he is given a cheque book. Whenever he desires to withdraw money himself or to make payment to some other person, he fills in a cheque; and cashes it with his banker or gives it to the other person who cashes it with the banker. Banks have now begun issuing cheque books to savings banks depositors also.

Parties to a Cheque. Like a bill of exchange, a cheque has three parties, *viz.*, (1) the drawer, the depositor who writes the cheque; (2) the drawee, the bank on whom the cheque is drawn; and (3) the payee, the person specified in the cheque for receiving payment. Cheques are of three kinds: bearer cheques, order cheques and crossed cheques.

Bearer Cheques. A bearer cheque is made payable to the bearer, *i. e.*, it is payable to the person who presents it to the bank for encashment. The bank is under no liability to ascertain that the payment is made to the right person. If a man finds a bearer cheque lying on a street and gets it encashed by the bank, the latter is not liable for the wrong payment. Bearer cheques do not require endorsements. The following is an example of a bearer cheque:

No. A 5302

Allahabad, June 1, 1952.

IMPERIAL BANK OF INDIA

Allahabad

Pay to Dr. R. Dubey or bearer rupees five hundred only.

Rs. 500.

For Kiab Mahal, Publishers,
S. N. Agarwala,
Manager.

Order Cheque. A cheque made payable to a certain person "or order" is called an order cheque. In the case of an order cheque, the bank is liable to ascertain that it is paid to the right person. If the payment is made to a wrong person due to the negligence of the bank, it shall be responsible for wrong payment. An order cheque must also be endorsed at the time of its transferability. Endorsement is effected by signing the name on the back of the cheque. In the absence of an endorsement, the transference of the order cheque will be invalid.

Crossed Cheque. Sometimes two parallel and transverse lines are drawn across the face of the cheque with or without the words "A/C" or "& Co.," etc. Such a cheque is known as a crossed cheque. A crossed cheque cannot be encashed at the counter of the drawee bank. The bank on whom it is drawn shall pay it only to a bank. When a man receives a crossed cheque, he usually deposits it with his own banker who collects it from the drawee bank. Such cheques are absolutely safe as chances of wrong payment are evidently minimised.

A Cheque and a Bill of Exchange. The following are the points of difference between a cheque and a bill of exchange:

<i>Cheque</i>	<i>Bill of Exchange</i>
(1) It is always drawn on a banker.	(1) The drawee may not be a banker.
(2) It is not accepted.	(2) It is accepted, unless it is a demand bill.
(3) It is always payable on demand.	(3) It may be a demand or a time document.
(4) It is used, generally, for internal circulation only.	(4) It is a very important means of settling international indebtedness.
(5) It may be crossed.	(5) It is never crossed.

- | | |
|--|--|
| (6) The drawee is not bound to pay, and will not pay, in case of any irregularity. | (6) The drawee who has accepted it is bound to pay it under any circumstances. |
| (7) The bank is protected against forged endorsement of a cheque drawn on him. | (7) The bank which pays a bill containing a forged endorsement cannot debit the acceptor for the amount. |
| (8) Any delay in the presentment of the cheque to the bank does not free the drawer and endorser from liability, unless the bank fails in the meantime | (8) If the (time) bill is not presented on due date, drawers and endorsers become free from liability. |

A Cheque and a Bank Note. The following are the points of difference between a cheque and a bank note:

- | <i>Cheque</i> | <i>Bank Note</i> |
|---|--|
| (1) It is not legal tender. | (1) It is legal tender. |
| (2) It is an order to pay a certain sum of money. | (2) It is a promise to pay a certain sum of money. |
| (3) It may be bearer or order. | (3) It is always bearer. |
| (4) It is drawn by a depositor. | (4) It is made by issuing authority—the State or the Central Bank. |
| (5) It may be crossed. | (5) It is not crossed. |
| (6) Its life is short as it does not inspire confidence in all. | (6) It has long life as it inspires great confidence in all. |

Cheques in India. Cheques have many advantages. They constitute a very cheap medium of exchange; their volume varies directly and automatically with currency requirements of the country; and they have many other merits besides. It is unfortunate that in our country the use of cheques is not well developed. The following are the means by which the practice of using cheques can be extended in this country: (1) The masses of the country are mostly illiterate and cannot write cheques. Attempts must be made to spread education among them while banks should devise some method of enabling even the illiterate to draw cheques. (2) At present cheques must usually be written in English. All persons do not know English, which prevents the use of cheques on a large scale. Attempts must be made to persuade or compel banks to make use of vernaculars. (3) Banks should provide facilities for prompt encashment of cheques at the counter. Traders and other customers should

be encouraged by banks to use cheques. (5) Joint stock and co-operative banks should allow money to be withdrawn from savings bank accounts by cheques. Cheques should be accepted in payment of land revenue, local rates and taxes. (5) The Government and local bodies should also make payments through cheques. (6) The Imperial Bank should adopt the policy of charging low rates of commission on up-country cheques. (7) Finally, extension of banking facilities is likely to encourage cheque habit.

Bank Draft

A bank draft is a cheque drawn by one bank upon another bank or its own branch situated at a different place, requiring it to pay a certain sum of money to a specified person or to his order or to the bearer. A bank draft may be inland or foreign. Usually persons who have to make payments to distant creditors go to their bank to obtain a bank draft. They have to deposit with the banker the amount to be remitted plus a small commission. Draft is then issued which is sent to the creditor concerned who gets it encashed.

Hundi

Definition. Hundi is the oldest surviving form of credit instrument in this country. In simple words, a hundi can be defined as a written order, *usually unconditional*, drawn by one person on another for the payment, on demand or after a specified time, of a certain sum of money, to a person named therein. A hundi is not quite an Indian bill of exchange as the existing text-books often make it out to be.⁵ A bill of exchange is always an unconditional order while a hundi is sometimes conditional.

Function of Hundis. Hundis play a very important part in the financing of the internal trade of this country. It is a convenient form of remittance of money from one place to another. It is also used for getting advances. A merchant in need of funds sometimes draws a hundi on his agent or some other person or firm with whom an arrangement is made beforehand, and gets it discounted at the bank. But the hundi does not occupy the same position in India as the bill of exchange does in England. A hundi does not contain anything to show that it is drawn against commercial goods and, as such, banks do not readily accept it. Usually they require endorsements of well-known bankers on it.

Sub-divisions of Hundis. A hundi may be *darshani*, i. e., payable on demand, or *muddati*, i. e., payable after a specified period.

⁵ Dr. L. C. Jain, *Indigenous Banking*.

Dārshani and Muddati hundies are sub-divided into ; (i) *Dhanijog Hundi*. *Dhanijog* hundi is payable to the Dhani or possessor or bearer. The bank is not liable if somehow the payment is made to the wrong person. (ii) *Shahjog Hundi*. *Shahjog* hundi is payable to 'Shah,' i.e., to a respectable person. The bank which pays a *Shahjog* hundi is responsible to see that the presenter is the proper person to receive the payment. The *Shahjog* hundi is like a crossed cheque, the only difference being that such a cheque is paid to a third party through a bank while the hundi is paid only to the special *Shah*. (iii) *Firmanjog Hundi*. This is made payable to order, the word *Firman* meaning order. (iv) *Dekhanhar Hundi*. It is payable to bearer.

SPECIMEN OF A HUNDI

Om

Number 345

Niah shree Allahabad shubhsthan shree putri bhai Navin Narain Shri Narain likhi Etah se Sri Niwas Sri Murari ke ram ram banchana. Apprach hundi kita nag ek rupia 250 ankn do san pachas jiske nime rupia ek san pachhis ka duna pura athe rakhi. The Mahaluxmi Etah bank Limited mas miti Bhadon sudi Naumi se din 60 sath picheche name shahjog Hundi chalan kildar diya, miti Bhadon sudi 9, Samwat 1978.

TRANSLATION

Om

No. 345.

To Messrs Navin Narain Sri Narain of the pleasant and prosperous city of Allahabad, Sri Niwas Sri Murari send their greetings from Etah. Further, a hundi of Rs. 250, in words Rupees two hundred and fifty, the half of which is one hundred and twenty-five pay the double of this to the Mahaluxmi Etah Bank, Limited, from Bhadon sudi 9 after 60 days in current money with Emperor's head after due inquiry. Bhadon sudi 9, samwat 1978.

Explanation. This is a time Shahjog hundi. Messrs. Sri Niwas Sri Murari are the drawers; Messrs Navin Narain Sri Narain, the drawees, and Mahaluxmi Etah Bank, Limited, the payee. The Hundi is written for Rs. 250.

QUESTIONS

1. Explain the various senses in which the word *Credit* is used. Explain its economic senses as clearly as you can.
2. What are the essentials of credit ? Show its importance and utility. What are its dangers ?
3. Define credit. Is credit capital ?
4. Explain the meaning of the term credit instruments. Do they differ from money ?
5. Explain the meaning of a promissory note, a bill of exchange and a cheque. What are the parties to each of them ?

6. Explain time and demand bills and inland and foreign bills.
7. Compare a bill of exchange with a promissory note, a cheque with a bill of exchange, and a cheque with a bank note.
8. Write short notes on bank draft, crossed cheques and hundis.
9. Write an essay on hundies, describing their functions and varieties.
10. To what extent are cheques used in India? Should their use be popularised? Why and how?

EXAMINATION QUESTIONS

U. P. Int. Arts

1. Write note on Hundis and cheques. (1951, 1948)
2. What are the advantages of the use of cheques? Are they money? (1950)
3. Write a note on a draft. (1950)
4. Write a short note on Clearing House. (1949)
5. What is a Cheque. How does the Cheque System benefit both the depositors and the bank? (1948, 1941)
6. What are the essentials of credit? Show its importance and utility. What are its dangers? (1946)
7. (a) What is a Bill of Exchange? How does it help in the internal or external trade of a country?
- (b) Mohan & Sons of Kanpur sell goods worth Rs. 1,000 to Shyamlal & Bros. of Banaras. Please draw a demand bill on behalf of the seller, payable to Rama & Co., Banaras. (1944)
8. (a) Distinguish a cheque from a note.
- (b) Give a specimen of an order cheque for Rs. 50 drawn on the Imperial Bank of India, Allahabad Branch, by Ram Prasad, payable to the U. P. Electric Supply Co., Ltd., crossed 'Not Negotiable.'
- (c) Can this cheque be dishonoured? (1943)
9. Define a credit instrument. Distinguish between a bill of exchange, a currency note and a cheque. Indicate the means by which the practice of using cheques can be extended in this country. (1935)
10. State what you know about *Hundi*. Give a specimen of a *Hundi* used in your locality and explain its meaning as clearly as you can. (1930)

U. P., Int. Com.

11. What is a cheque? What is the object of crossing a cheque? Prepare a cheque and cross it specially. (1945)
12. Explain the different types of Hundis that circulate in this country and define their legal position. (1932)

Rajputana, Inter. Arts

13. Write a short note on difference between a note and a cheque. (1944)
14. What is meant by credit? What are the services rendered by credit to trade and industries in India? (Raj., I. A., 1943)
15. What are the advantages of cheque? (1941)
16. What do you understand by (a) a cheque, and (b) a bill of exchange? Explain how far they have helped the development of commerce in India.

Raj., Int. Com.

17. Write a note on Bills of Exchange. (1949)

18. Write a note on Hundis (1948, 1947)

19-A. State what you know about Hundis. Give a specimen form of a Hundi used in your locality and explain its meaning as clearly as you can. (1945)

19-B. Distinguish between a cheque and a bank note. The use of cheque involves the element of belief to a much greater extent than that of a bank note. Explain. (1944)

Patna, Int. Com.

20. Write a note on Bank Draft. (1949 S)

21. What do you mean by Rate of Exchange ? Should it be stable? (1949 S)

22. Explain the mechanism for the payment of international obligations. Why is it that the Central Bank discounts only those bills which bear at least one signature of a sound financial concern ? (1948 A)

23. Write notes on :

(a) Credit money ;

(b) Bill of Exchange. (1948 A)

24. What do you mean by rate of exchange ? Why is it that the rate of exchange remains stable in the case of Gold Currencies ? Does a country gain any advantage by stability in the rate of exchange ? (1948 S)

Sagar, Int. Arts

25. Write notes on :

(i) Bearer and order cheques,

(ii) Bill of Exchange. (1949)

26. What are the chief instruments of credit ? How they facilitate the settlement of business transactions ? (1949 Supp)

27. What is a Bill of Exchange ? How does it operate ? What are its advantages ? (1948)

28. Write a note on different kinds of cheques. (1948)

Nagpur, Int. Arts

29. Give the distinguishing features of a bill of exchange. How and why is it discounted ? Clearly explain how it saves the use of money. (1948)

30. What is a 'crossed cheque.' Discuss its merits as mode of payment. (1947)

Nagpur, Int. Com.

31. What is a crossed cheque ? Discuss its merits as a mode of payment. (1947)

32. Write a note on Bills of Exchange. (1946)

Travancore, Int.

33. What is a Bill of Exchange ? What part does it play in business ? (1943)

Panjab, Inter.

34. Write a short note on a crossed cheque. (1949)

35. Write a short note on a Bill of Exchange. (1949)

Delhi, Higher Secondary

36. Write a short note on a Bill of Exchange. (1951)

37. What are various kinds of credit instruments ? (1950)

BANKS

"I was discussing the Bank Return with the Governor of the Bank during the war, and mentioned that there was only one line of it which I thought I understood, 'Gold coin and Bullion.' The Governor, with a twinkle in his eye, replied, 'Mr. Leaf, I do not think you understand even that.'—*Leaf*."

Bank is an institution which deals in money and credit; it is often styled as a *credit institution*. We shall briefly study this vitally important limb of modern economy in this chapter.

Definition of Bank

Banks perform a large variety of functions in the modern society. As such, the word 'Bank' has been defined in numerous ways according to the aspect, or aspects, specially emphasized by writers. The simplest definition of the word 'Bank' is the one which emphasizes the essentials of this institution. A bank, as everybody knows, receives deposits from those who want to commit their wealth to safety and also earn some interest; in other words, *it borrows money. It also lends money* to the needy. The borrowing and the lending of money are its essential functions. It may, therefore, be defined as an institution which borrows and lends money. As the purchase and sale of the use of money are credit operations, economists usually define banks as *institutions dealing in credit and money*.¹

Functions and Utility of Banks

The modern bank performs numerous functions which throw light on the variety of the services it renders to the modern civilized society. They have been rightly styled as the "nerve-centre of the modern world". These functions can be conveniently divided into three classes: (1) Primary Functions; (2) General Utility Functions; and (3) Agency Functions.

(1) *Primary Functions*. The primary and essential functions of a bank, as is evident from the definition of the word 'bank', are two: the borrowing and the lending of money. A bank

¹ Some authorities on banking give importance to the maintenance of current accounts. Thus Hart says, "A banker is one, who, in the ordinary course of his business, receives money which he repays by honouring cheques of persons from whom, or for whose account, he receives it". (Hart, *Law of Banking*). Some economists maintain that the diversity of modern banking operation in order to satisfy the changing needs of our dynamic society forbids all attempts at an exhaustive definition of the term bank. We should describe the functions of various types of banks rather than define the bank itself. For instance, See Rau, *Elementary Banking*.

borrow money with one hand in order to lend it with the other; and this essential feature of its business remains the same whether the bank is a vast joint stock organization with a wealth of resources and net-work of branches and agencies, or a comparatively small private bank or "a pioneer bank in a new country, with a stock-in-trade consisting of a tent, a safe, a trestle table and a revolver".

(a) *The Borrowing of Money.* Banks borrow money in the shape of deposits. Persons having money but faced with the problem of its proper investment or safe custody, deposit it with banks and, in many cases, receive interest.

Money may be deposited in a Current Account or a Fixed Deposit Account or a Savings Bank Account. In the case of a *Current Account*, the deposited money may be withdrawn by cheques whenever necessary and no notice need be given to the bank. Usually no interest is given on current deposits, unless a minimum balance of a considerable sum is maintained. In the case of *Fixed Deposit Account*, the deposit is made for a fixed period and is not withdrawable before the expiry of that period. An attractive rate of interest is given on such deposits. In the case of a *Savings Bank Account*, money deposited may be withdrawn with certain limitations; for instance, in Post Office Savings Bank Deposits, withdrawals may be made only once a week and if a large sum is to be withdrawn, previous notice to the Post Office is necessary. Such deposits carry a moderate rate of interest.

This function of the bank encourages people to *save* money. When it is known that an easy and convenient means of safe and profitable investment of money in the shape of deposits is available, people who would have otherwise spent all their income or hoarded it underground, do not do so. They begin to take pleasure in seeing the balance of their Bank Pass Book increasing in amount through deposits and interest.

(b) *The Lending of Money.* The small deposits received by banks together constitute a huge amount. This is lent out by the banks to capable agriculturists, industrialists and businessmen, who invest it in their ventures to their own profit and to the economic advancement of the country. The tiny streamlets of individual savings flowing into bank vaults are thus made to flow out as mighty rivers to irrigate the fields of agriculturists, to move the wheels of industry and to float the vessels of commerce. The great service rendered by banks in converting huge idle resources into active capital by acting as a sort of standing brokers between the quiet saving districts and persons, and the active employing districts and persons, is too much to be appreciated. Money is lent to industrialists,

agriculturists and traders in various ways. The discounting of bills of exchange and the granting of overdraft on current accounts are two important methods of commercial credit.

(2) *General Utility Functions.* Besides the primary functions mentioned above, the modern bank performs many miscellaneous functions which are of great general utility. (a) *Issue of Notes.* The issue of notes is usually entrusted to a duly constituted Central or Reserve Bank of the country which has the capacity to perform this function more efficiently than the Government. In India the sole right of the note issue is vested in the Reserve Bank of India. In Great Britain, the Bank of England enjoys this privilege. (b) *Supply of Currency.* Modern banks are means through which not only paper currency but all forms of currency are put into circulation. They also discharge the relative duty of withdrawing from circulation light coins and defaced note. (c) *Issue of Credit Instruments.* Banks create credit instruments like bank drafts, cheques, letters of credit, etc., which economise the use of metallic currency, make the transmission of money over long distances convenient and cheap, and remove the want of medium of exchange felt by modern communities, currency alone being inadequate to meet the entire need. (d). *Foreign Exchange Business.* In olden days, each country used to have different kinds of money in different parts, and bankers did the useful work of changing one kind of money into the other kinds. This gave them the name of 'money changers'. This function has now become defunct as each country has begun to maintain a uniform currency throughout its length and breadth. But different countries still possess different currencies and banks play the important role of purchasing and selling foreign currency, foreign bills of exchange and other credit instruments in exchange for the currency of the country in which they are situated. They facilitate foreign trade to an appreciable degree. (e) *Safe Custody of Valuables.* Banks undertake to keep in safe custody valuables and important documents in specially constructed strong rooms which are sure safeguards against fire and theft. The small payment charged by them for the purpose is nothing in comparison to the utility of the service rendered.

Agency Functions. Banks also render many "agency services" by acting as agents of their customers in various capacities. (a) They collect and pay cheques, realise dividends and interest and pay subscriptions and insurance premiums in the capacity of special agents of their customers. (b) Banks conduct stock and share transactions on behalf of their customers. (c) They act in various other agency capacities such as those of trustees, attorneys and executors.

Kinds of Banks

The financial requirements of the modern community are diverse and various so that different types of banks have been set up for specializing in different kinds of work, as mentioned below :

1. *Commercial Banks.* They finance the internal trade of a country. They collect the floating capital of the community and finance the temporary needs of commercial transactions.
2. *Exchange Banks.* Their sole concern is to finance the foreign trade of a country.
3. *Industrial Banks.* They finance the industries requiring long-term credit.
4. *Agricultural Banks.* They finance agriculture. As a rule, they provide the long-term finance.
5. *Co-operative Banks.* They are usually started with the object of financing short-term needs of agriculture and industries.
6. *Savings Banks.* They mobilise the small savings of the people in the savings bank accounts.
7. *Indigenous or Private Bankers.* In most of the countries there is a large number of private or individual bankers who have been catering to the various financial requirements of the community as a hereditary occupation.

Banks Lend More than What They Deposit

An interesting aspect of the banking business is that banks are in a position to make advances much larger than the deposits that they receive. It is a sort of anomaly and often puzzles students.

In order to understand this problem, it should first be made clear that the money borrowed from a bank is usually deposited in the same bank by the borrower, either because the bank insists on it or because there are certain advantages in having a current account deposit. It is this procedure which makes the deposits of a bank so large. Such deposits are known as *credit deposits* as against *cash deposits*, i.e., the deposit of actual cash. Now banks know on the basis of their past experience that the whole of the money deposited is not withdrawn at any particular time. The maximum possible demand is usually a certain percentage of the total deposits. This percentage may come to 10 per cent. Banks will, therefore, keep a 10 per cent "reserve" against deposits and lend the remaining amount. Thus, suppose a cash deposit of Rs. 1,000 is made with a particular bank. It will keep (10 per cent of Rs. 1,000) Rs. 100 as reserve against this deposit and give a loan

of Rs. 900. This amount will be deposited by the borrower in the same bank. It will keep (10 per cent of Rs. 900) Rs. 90 as reserve against this deposit and give a fresh loan of Rs. 810. This process will be repeated as long as possible. According to this policy, the bank will be in a position to lend roughly ten times more than the cash deposits it receives.

Profit and Loss Account and Balance Sheet of a Bank

The important accounting documents of a bank are : (1) Profit and Loss Account, and (2) Balance Sheet.

Profit and Loss Account. A Profit and Loss Account shows the various items of income and expenditure, strikes out the net profit or loss, and explains the appropriation thereof. The following is an imaginary Profit and Loss Account of XYZ Bank, Limited.

Profit and Loss Account of the XYZ Bank, Limited, for the year ending December 31, 1952.

Dr.		Cr.	
Particulars	Rs.	Particulars	Rs.
To General Expenses	25,000	By Balance ...	10,000
To Depreciation of Premises ...	9,000	By Interest and Discount ...	150,000
To Income Tax ...	3,000	...	...
To Balance ...	123,000	...	...
	160,000		160,000
To Dividend Paid ...	100,000	By Balance ...	123,000
To Balance ...	23,000	...	...
	123,000		123,000

In this account the left-hand (debit) side records all items of loss and expenditure and the right-hand (credit) side, of gain or income. The balance of Rs. 123,000 is the net profit of year 1952. Its appropriation is shown in the lower half of the Account: Rs. 100,000 are paid in the shape of dividends, leaving a balance of Rs. 23,000.

Balance Sheet. Balance Sheet is a statement showing the assets and liabilities of a concern, thus giving an idea of its financial position. Assets indicate the properties in the possession of the bank and the

money owing to it by others. Assets are shown on the right-hand side of the Balance Sheet. *Liabilities* are the financial obligations of the concern and are shown on the left-hand side of the Balance Sheet. We give below an imaginary bank's balance sheet for the sake of illustration.

*Balance Sheet of the XYZ Bank, Limited, for the year
ending December 31, 1952*

Liabilities	Rs.	Assets	Rs.
Authorized Capital ; 50,000 shares of Rs. 10 each	500,000	Cash in hand and at Bank	300,000
		Money at call and short notice	100,000
Issued Capital: 25,000 shares of Rs. 10 each	250,000	Investment in Securities	1,000,000
Subscribed Capital : 20,000 shares of Rs. 10 each	200,000	Loans and Ad- vances	100,000
Paid up capital : 20,000 shares of Rs. 10 each	200,000	Bills Discounted	150,000
Reserve Fund	190,000	Banks Premises	73,000
Deposit Accounts	1,300,000		
Interest Account	10,000		
Profit and Loss Account	23,000		
	1,723,000		1,723,000

Liabilities. This Balance Sheet needs explanation. We shall discuss the liabilities first. (1) *Capital*. Capital is the first item. Capital is of various kinds. *Authorised Capital* is the maximum amount which the company is authorised (by its Memorandum) to raise. It is Rs. 500,000 in the above B/S. Usually the whole of the authorised capital is not issued for subscription by the public : only a part of it is so issued and it is called *Issued Capital*. The Issued Capital amounts to Rs. 250,000 in the above B.S. The share capital which is actually subscribed for by the public is known as *Subscribed Capital*. It is

shown at Rs. 200,000 in the Balance Sheet under discussion. *Called-up Capital* is the capital which the directors of the Bank call upon the subscribers to pay. The *Paid-up Capital* is the capital actually paid by the share-holders : it is Rs. 200,000. (2) *Reserve Fund*. Usually a part of profits is withheld from being distributed as dividend and is transferred to what is called the *Reserve Fund* to be made use of in times of financial embarrassment. (3) *Deposit Account* of 1,300,000 represents the total deposits received by the bank. (4) *Interest Account* shows that the bank has to pay Rs. 10,000 by way of interest. (5) *Profit and Loss Account* shows that the balance of the P. & L. Account which was discussed above.

Assets. Let us now briefly examine the assets side of the Balance Sheet as well. (1) *Cash in Hand and Cash at Bank*. It is too simple to need explanation. (2) *Money at Call and Short Notice*. This is the money lent by the bank on the condition that it will have to be paid whenever called or after the expiry of a short notice given to the effect. (3) *Investments in Securities*. (4) *Loans and Advances*. (5) *Bills Discounted*. The Bank has discounted bills of exchange worth Rs. 150,000. It has to receive this amount from the acceptors of the bills on their respective due dates. (6) *Bank Premises, i. e., buildings of the bank, are valued at Rs. 73,000.*

QUESTIONS

1. Define a bank and describe its functions.
2. How is it that banks lend more than what they deposit ?
3. Describe the balance sheet and profit and loss account of a bank.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. Write a note on Central Banks. (1950)
2. Explain carefully how banks help production. Describe the functions of Indigenous Bankers in India. (1948)
3. What services do banks render ? (1947)
4. Write a short note on land mortgage banks. (1947)
5. State briefly the functions of a commercial bank. In what respects does the business of a bank differ from that of an Indian money-lender ? (1945)
6. What is a commercial bank ? What are its main factors ? Name four important commercial banks working in India. (1942)
7. What is a bank ? Distinguish between authorised, subscribed and paid up capital. Set out in two statements (a) the liabilities and assets and (b) profit and loss account of a bank. (1930)

Rajputana, Inter. Arts

8. What are the services performed by a bank? Is the village mahajan in India a banker in the true sense of the term? Give reasons for your answer. (1944)

9. "The assets of a bank should as far as possible be kept in a liquid form." Explain why. In what various forms do Indian Joint Stock Banks invest their assets so as to keep them liquid? (1944)

10. Describe the main functions of a bank and show how it helps to increase the efficiency of production by transferring capital from a set of persons to another. (1932)

Raj., Inter. Com.

11. What are the main functions of a bank? Briefly describe the Indian banking system. (1947)

Patna., Inter. Arts

12. What are the services rendered by Banks to the community? Explain 'why cash reserves' are kept by bank? (1949A)

13. What are the different services rendered to the community by banks? (1947S)

Patna, Inter. Com.

14. What do you mean by balance sheet of a Commercial Bank? Draw an imaginary balance sheet of a Commercial Bank. (1949A)

15. Explain the functions of a Central Bank. (1948A)

16. Write notes on (a) Bank Money, and (b) Banker's Bank. (1948S)

17. Distinguish between Fixed Deposit and Current Deposit. Why does a bank maintain a reserve against its deposits? (1947S)

Banaras, Inter. Arts

18. Describe the various functions performed by modern banks. (1946)

Sagar, Inter. Arts

19. Describe the chief functions of a commercial bank. (1949)

20. Write a note on Banks. (1949 Supp.)

21. What is a commercial bank? How does it borrow? What are the methods of lending by the bank? (1948)

Nagpur, Inter. Arts

22. Describe the main functions of a commercial bank. (1947)

23. Write a note on Fixed Deposits. (1947)

24. Explain the functions and importance of commercial banks. (1945)

Nagpur, Inter. Com.

25. Describe the main functions of a commercial bank. (1949)

26. Write a note on Fixed Deposits. (1947)

27. How do the banks in India effect economy in the use of money in the country? (1946)

Poona., Inter. Arts

28. Describe the various types of banks. Explain the part played by the Central Bank in the banking system of a country. (1949)

Andhra, Inter. Arts

29. What are the different types of collateral securities accepted by commercial banks? Mention them in order of preference giving reasons for the same. (1950)

Travancore, Inter.

30. Describe the chief items of assets and liabilities in the balance sheet of a commercial bank and discuss the nature and importance of each. (1943)

Punjab, Inter. Arts

31. Distinguish between (a) Commercial Bank, (b) Co-operative Bank, (c) and Central Bank. (1949)

32. Write a short note on "Run on a Bank." (1949)

Delhi, Higher Secondary

33. Explain the functions and advantages of Banks. (1951)

34. "Loans create deposits." Explain this statement fully. (1950)

35. State clearly the main functions of banks. What are the main types of banks that work in India? (1918)

INDIAN BANKING SYSTEM

It may be accepted that a system of banking eminently suited to India's then requirements, was in force in that country many centuries before the science of banking became an accomplished fact in England. It is true that the methods of old in force in India were vastly different from the European ideas of banking today.....Nevertheless.....they admirably acted their part and must be recognised as having rendered immense services to the country as a whole. —H. E. Preston.

§ 1. INDIAN MONEY MARKET

Money Market

'Money market' refers to the buyers and sellers of the use of money. In other words, the term signifies the borrowers and lenders of money. Money is usually borrowed by agriculturists, industrialists and traders for productive purposes and by consumers for unproductive purposes to tide over temporary deficits in their budgets.² Money is lent by banks and money-lenders. The borrowers and lenders together constitute the money market.

Constituents of Indian Money Market

India has money market but it is small and divided, haphazardly organized and poor in variety, and generally backward to a great extent. Its constituents are :

A. The Indian Banking System : The Lenders

- (1) The Indigenous Banking System ;
- (2) The Modern Banking System ; and
- (3) The Reserve Bank of India.

B. The Borrowers

We shall give below a brief description of these constituents. The borrowers, it may be remarked, will not be treated separately but will be given incidental consideration along with the discussion of the Indian Banking System.

§ 2. THE INDIGENOUS BANKERS³

The Indian Banking System is divided into two systems :

¹Students should remember that 'market' does not refer to any particular market place but to the buyers and sellers of a commodity in which they carry on free and unhampered trade.

²Banks too borrow money in the shape of deposits from their depositors.

³For detailed study see L. C. Jain, *Indigenous Banking in India*; H. Sinha, *Early European Banking in India*; B. T. Thakur, *Organisation of Indian Banking*; *Enquiry Committee Reports*; etc.

(1) *The Indigenous Banking System* which has been handed down to us from our ancestors; and (2) *The Modern Banking* set up during the British Period in which may also be included the Reserve Bank of India. These two parts have so far remained separate and the problem of removing the gulf between them is one of the most pressing problems of the day.

Introduction

The word 'indigenous' according to dictionary, means 'native of the place'. As such 'indigenous banking' means *banking business carried on by the natives in the old Indian fashion*. It is now generally admitted that from very early times India possessed an efficient system of indigenous banking. In fact, money-lending can be traced back to 2000 B. C., and the subsequent history bristles with definite references to the banking business carried on in the days of yore. The Buddhist works, Kautilya's *Arthshastra*, and *Dharmashastra* make detailed remarks about indigenous banking and show its importance in the economy of the country in those times. Indeed, even today indigenous bankers play a much more important part than the more imposing modern banks. They are spread throughout the length and breadth of the country and are to be found in every village, town and city. They are called by different names; in the mofussil they are known as *sahukars*, *banias* and *mahajans* while in large industrial and commercial centres they are called *shroffs*. The firm of indigenous bankers is usually a family concern and is not organised on joint stock principle.

Functions

The main business of indigenous bankers is to *advance loans* on every kind of security—ornaments, land, promissory notes or even verbal promise. In villages, they finance agriculturists and petty artisans who rarely have any good security to offer. In such areas, indigenous bankers are almost the only source of credit. Their methods are very simple and free from formalities and suit the illiterate borrowers eminently. In towns, they finance trade and big mills and factories. (2) They also *deal in hundis*. They buy or discount hundis offered by their customers and cash those drawn upon them by their agents or by approved firms. They sell hundis drawn upon their agents or other firms agreeing to this arrangement. (3) Some of them also *receive deposits* but all or most of them do not do so. (4) They generally *combine* trading with the banking or money-lending business. They deal in cotton, grain, gold, etc., while many of them indulge in speculation.

Their Status as Bankers

The indigenous bankers are called 'bankers' but are they really *bankers*, in the strict sense of the term? A banker is one who

borrow money as well as lends it. Indigenous bankers lend money but only in rare cases do they receive deposits. As such those *indigenous bankers* who do not receive deposits are not bankers but are merely money-lenders. Those who do receive deposits are, of course, true bankers⁴.

The above discussion throws considerable light on the points of difference between indigenous bankers and modern bankers. These points of difference may be tabulated below :

Indigenous Bankers

1. Their firm is usually organised as a family concern.
2. Only a few of them receive deposits.
3. They frequently combine trading with banking.
4. They do not issue paper currency.
5. Major portion of their funds is lent without adequate security; as such they undertake great risk.
6. They usually finance petty agriculturists, small artisans and short-distance trade.
7. Major portion of their work is done in villages.

Modern Bankers

1. They are generally incorporated as joint stock companies.
2. The receipt of deposits is their important function. In fact, their capital comes not so much from proprietors or share-holders as from their depositors.
3. They do not combine any other business with the banking business.
4. The Central or Reserve Bank is given the sole right of note issue.
5. Loans are granted only against substantial security so as to minimize risk.
6. They finance big concerns and long distance trade. The financing of foreign trade is almost exclusively their preserve.
7. Most of them are situated in big industrial cities.

⁴ Indian Banking Enquiry Committee divides 'indigenous bankers' into *indigenous bankers* and *indigenous money-lenders* from this point of view. This nomenclature evidently creates certain confusion. In my opinion, if we name all the members of this system as '*Indigenous Financiers*' and divide indigenous financiers into indigenous bankers and indigenous money-lenders, this terminological confusion will be removed.

indigenous bankers into joint stock banks; (2) the formation of a co-operative bank of indigenous bankers, which should, *inter alia*, discount *hundis* of the members and rediscount them with the Reserve Bank of India; (3) the adoption of bill brokerage as an integral part of the indigenous bankers' business.

The linking up of indigenous bankers with modern banking system

There are two distinct and separate parts of the Indian banking system: (i) Rural part, in which indigenous bankers predominate and where modern banks have not yet reached; and (ii) Urban part, in which the influence of modern banks is very considerable.

There has not yet arisen any close intimacy or connexion between these two divisions of the Indian banking system. Its result is that the rate of interest is low in urban areas but it is high in rural areas. The surplus money in urban areas does not move to the villages where it could be used by cultivators and artisans and help in bringing down the high rate of interest which prevails there. At the same time, village mahajans do not deposit their surplus money in modern banks: they are used to hoard money or to purchase gold and ornaments. If a close intimacy develops in these two parts, the surplus money of village mahajans can be used in cities and the surplus money of urban areas can be used in villages. The need of linking up these two divisions of the Indian banking system should, therefore, be obvious.

This work has not yet been accomplished. The Indian Banking Enquiry Committee had proposed that sahu-kars should have the right to get their hundis re-discounted with the Reserve Bank of India; and the Reserve Bank should accept them. But nothing has been done in this direction yet.

§ 3. MODERN BANKING SYSTEM

With the advent of the Europeans in India, modern banks began to be set up on western lines. And today we have got a fine system of modern banks, though it leaves much to be desired. Its important limbs are:

1. Commercial Banks.
2. The Imperial Bank of India.
3. Exchange Banks.
4. Industrial Banks.
5. Land Mortgage Banks.
6. Co-operative Banks.
7. Savings Banks.

8. The Reserve Bank of India is, by virtue of its being the 'apex bank,' given a separate treatment in the following section.

Their Organisation. Most of these banks are organised on the *joint stock principle*: they are joint stock companies for carrying on banking business. For instance, commercial banks, exchange banks and industrial banks are generally joint stock companies. The Reserve Bank of India and the Imperial Bank of India are also joint stock banks but they have been incorporated under special Acts. Co-operative Banks are organised on the *co-operative principle*. Savings banks are a department of the joint stock banks or of the Post Office which is a Government institution.⁵ Sometimes students get the wrong impression that a joint stock bank means a commercial bank, because most of the joint stock banks in India are commercial banks. But this is an altogether mistaken notion.

1. Commercial Banks

Their Nature. Most of the modern Banks in India are commercial Banks. As their name implies, they finance the internal trade of the country and give short-term loans for the purpose. They provide the working capital, so to say. On the basis of the cash resources and the deposits that they possess, they raise a huge structure of short-dated credit. Their deposits being mostly demand obligations, they take precautions against getting their funds enmeshed in long term loans; in order to be able to meet the demands of depositors, they have to keep their funds 'liquid'.⁶

Their Position in India. The Indian Commercial Banks, other than the Allahabad Bank and the Oudh Commercial Bank, were all established in recent years. The important commercial banks of the country are the Imperial Bank of India, the Central Bank of India, the Punjab National Bank, the Allahabad Bank, and the United Commercial Bank. They are distributed in big cities like Calcutta, Bombay, Kanpur, etc., and have not yet penetrated into the interior. Some economists believe that we should not increase the number of the banking offices in the country for the time being but should address ourselves to the problem of consolidation of the existing banks. Others, however, think that since the vast tracts of the country are still unserved by efficient banks the establishment of new banks need not be discouraged.

⁵ Writers on the subject lump together all types of bank under the title "Indian Joint Stock Banks." This treatment, not being sufficiently analytical sometimes gives the *wrong impression* that by *Indian joint stock banks* is meant *commercial banks* as most of the Indian joint stock banks are commercial banks. I have, therefore, slightly varied the mode of treatment.

⁶ Liquidity refers to ready convertibility into cash.

Defects and Remedies. Our commercial banks suffer from many disadvantages which need remedy. *They do not give clean advances on the personal securities of borrowers.* In practice, clean advances on personal security of an individual of undoubted means and character, turn out to be just as safe and satisfactory as any other. Again, *they lack the systematic collection of credit information about their customers, which should be evolved.* Efforts should also be made to *popularise the use of bills* by providing discount facilities. They should try to encourage the use of cheques through various means discussed in the preceding chapter.

2. The Imperial Bank of India

The Imperial Bank of India, formed in January, 1921, under the Imperial Bank of India Act, is at present the most powerful commercial bank of the country. It has had a romantic career. It was formed in 1921 as a share-holders' bank by the amalgamation of the three Presidency Banks of Calcutta, Bombay and Madras and was expected to discharge functions of a Central or Reserve Bank. The Act, as such, set up an elaborate system of its control and management which were entrusted to a Central Board of Governors with three local Boards at Calcutta, Bombay and Madras. Important restrictions were also originally placed on its functions. Thus it was prohibited from lending money for more than six months and from financing foreign trade. Its chief functions were the following: (1) To act as a banker to the Governmental bodies, (2) To act as a banker to other banks, (3) To advance money on the security of stocks, Government securities, debentures, goods, etc., (with certain limitation), (4) To draw, accept discount, buy and sell bills of exchange and other negotiable securities, (5) To receive deposit and securities for safe custody, (6) To transact various other miscellaneous banking functions.

The Act put the Bank under an obligation to open 100 branches within a period of five years from its inception, an obligation which was duly discharged.

Due to the defective provisions of the Act and the spirit with which it was administered, the working of the Imperial Bank did not come up to the expected level. It was given certain privileges which are usual in the case of a Central Bank alone. But, curiously enough, it was not effectively debarred from entering into competition with other banks. The consequence was that it made use of its special privileges to obtain unfair competitive advantages over other banks of the country. It was neither a full-fledged Central Bank nor an independent

commercial bank, but a hybrid mixture of both ; and was severely criticised in both these forms.

The mistake was realised in course of time. The correction was made in 1935, when the Reserve Bank of India was set up to act as the Central Bank of the country. The Imperial Bank ceased to be the Central or Reserve Bank from that date. It, however, entered into an agreement with the Reserve Bank of India by which it became the sole agent of the Reserve Bank. The Imperial Bank Act was amended. The restrictive provisions; that the Bank cannot transact foreign exchange business and that it cannot lend for more than 6 months, etc., have been relaxed. It is expected that the Bank shall render greater services to the country under its amended constitution than what it has done in the past.

3. Exchange Banks

Just as commercial banks finance the internal trade of the country, similarly exchange banks finance its foreign trade.

The following is their business : (1) They realise the import bills on the maturity dates. (2) They sell draft and Telegraphic Transfers payable in foreign countries. (3) They purchase drafts and Telegraphic Transfers, etc., at foreign centres payable in the centres where they conduct their operations. (4) They import gold and silver as well as foreign currency.

The most important point regarding exchange banks is that *most of them are foreign banks.*⁷ There are not many Indian exchange banks. Attempts had been made in the past to start an Indian exchange bank but they were nipped in the bud by the powerful foreign exchange banks. The Central Bank of India recently took the lead in this direction and started the Central (Exchange) Bank of India in London but it had to close down the venture in the teeth of crushing competition of the privileged foreign banks. Some Indian banks have now begun this business.

The absence of Indian foreign banks is not merely an academic or patriotic insult to India ; it also creates many practical difficulties. Complaints have been made that these banks are unduly harsh on Indian businessmen and show favour to the traders of their own country in various matters, small and big. They do not supply satisfactory references about Indian merchants to foreigners and literally force Indian merchants to insure goods with foreign insurance companies and to ship goods in foreign

⁷ The important exchange banks working in India are the Chartered Bank of India, Australia and China, P. & O. Banking Corporation, Yokohama Specie Bank, etc.

ships. Of late, they have also begun to receive deposits in India by opening branches in the interior and to utilise the funds as they please; not infrequently against the economic interests of this country. It is high time that such sharp practices should be stopped and protection afforded to Indian institutions of this character.

4. Industrial Banks

Industrial Banks are meant to finance industries for long periods. Just as commercial banks provide working capital, industrial banks provide *fixed capital* to industrialists. Since they give long-term loans, they persuade people to entrust them with money in the shape of fixed deposits by offering attractive rates of interest and by other methods. They also aid industries in raising capital from the public by under-writing the sale of their shares and by selling stocks and bonds. They are evidently very useful institutions, particularly to a country like ours which is in urgent need of rapid industrialisation. But we, unfortunately, possess very few industrial banks. The Swadeshi Movement led to the establishment of many industrial banks but most of them had to close their doors owing to the lack of capital at the critical stage; while the Punjab banks, which attempted industrial financing with short-term deposits, came to grief. Attempts must be made afresh to start such banks on sound lines.

5. Land Mortgage Banks

Land mortgage banks are meant to give long-term loans to agriculturists mainly for effecting permanent improvements (*i. e.*, to provide fixed agricultural capital) against the mortgage of land.⁸ Their function in agricultural finance corresponds with the function of industrial banks in industrial finance. There are very few land mortgage banks in India. Most of the existing banks have been incorporated under the Co-operative Societies Act. There is an urgent need for more banks of this type.

6. Co-operative Credit Institutions

Co-operative banks and credit societies are the societies established under the Co-operative Societies Act for providing credit to their members. Generally, they give short-term loans to agriculturists and artisans. Co-operative credit institutions fall under three classes :

1. Primary Societies ;
2. Central Banks ; and
3. State Banks.

⁸ They also give loans for the redemption of past debts.

Primary Societies are spread throughout the length and breadth of the country and come in direct contact with artisans and cultivators whom they finance. They are associations of borrowers and non-borrowers of a particular locality, and the members generally have unlimited liability so that they may be vigilant in making advances. They receive funds in the shape of share capital, deposits and entrance fees. The deposits made by the Co-operative Central Banks, with which they are affiliated, are also important. Loans are made to the members alone.

Co-operative Central Banks are district institutions, each district having a Central Bank. They unify and direct the Primary Credit Societies affiliated with them and give them financial assistance. Their sources of funds are their own capital, deposits from the public and the funds given by State Co-operative Banks.

State (Provincial) Banks. All the Central Banks of a state are affiliated with the State Bank of that state. The State Banks are thus federations of Central Banks. There is great need of an *All-India Co-operative Bank* to federate the activities of the State Banks, no such institutions having been established so far.

The co-operative credit movement has not yet shown creditable results on any extensive scale, though it has not been entirely barren of good fruits. Co-operative credit institutions provide credit at low rates of interest thus enabling the poor to effect a saving in the interest charges. It is stated that co-operative credit societies have effected a yearly saving of about one crore of rupees for the agricultural and artisan classes in this way. Not only this, the co-operative credit system provides some control on credit and restricts debts and is distinctly superior to the money-lenders' demoralizing system of dangerously facile credit. In fact in many cases co-operation has efficiently competed with indigenous bankers and has compelled them to reduce the rates of interest. Even in the matter of debt redemption, something has certainly been achieved, particularly through the formation of land mortgage banks on co-operative lines. In the words of Mr. Darling, the co-operative movement is a new form of communal life to protect the peasant from within and without his gates, in the place of the old communal life of village which prevented the cultivator from being exploited. Finally, the movement has popularized banking habit and has converted considerable idle resources and hoards into active capital. The movement certainly suffers from many defects but it is hoped that they will be removed in course of time.

7. Savings Banks

Savings banks are meant to mobilize the small savings of the people on attractive and easy terms, and to use the funds thus collected in profitable channels. Savings banks in India are of two kinds. Some of them are organised as departments of the modern commercial banks while others are maintained by Post Offices. As the latter are Government institutions and inspire more confidence and security, besides being more wide-spread, they are much more important than the former. Withdrawals are generally allowed by them once a week. The rate of interest is usually low. Some banks permit the savings bank accounts to be operated with cheques.

§. 4. THE RESERVE BANK OF INDIA

The Reserve Bank of India may be considered to be a part of the modern banking system. But by virtue of its status and functions, it is being treated separately.

Objects of a Reserve or Central Bank

The control and regulation of credit and currency with a view to stabilize prices, as far as possible, is a problem of fundamental significance. If the supply of credit and currency falls short of the demand for them, prices may fall and depression may set in. On the other hand, if the supply exceeds the demand, prices may rise and an artificial 'boom' may be precipitated, resulting in incalculable loss when the 'bubble' is 'pricked'. An abnormal fluctuation in price level, moreover, upsets the economic relationship subsisting between various classes of people in the society. The control and regulation of credit is, as such, an important function which is usually entrusted to an 'apex bank,' called the Central Bank or the Reserve Bank. The Bank is invariably the banker of the Government and of other banks in the country. It also performs many subsidiary functions like the development of discount market, the protection of the banking system of the country, the popularization of the use of cheques, etc.

History of the Reserve Bank of India

The first day of April, 1935, is of profound importance in the economic history of our country as the Reserve Bank of India commenced its work on that date. The idea of establishing a Central Bank was mooted as early as 1835 and received further thought on several occasions thereafter. But nothing substantial was achieved, till 1921 when the Imperial Bank of India was constituted with the hope that it would work as the Central Bank of the country. It was, in fact, a hybrid institution having certain privileges usual only in the case of a Central Bank, as well as the right to compete freely with other banks in the ordinary banking

business. The consequence was that it used its special privileges to crush other banks and thus defeated the very objective for which it was set up. The want of a Reserve Bank continued to be felt. A bill for the formation of a Reserve Bank was piloted by the Finance Member in the Central Assembly in 1927 but was turned down by the members on the question of its ownership. It was, at last, in 1934 that the Reserve Bank of India Act was passed and the Reserve Bank was set up in 1935.

Its Ownership and Capital

The Reserve Bank of India was established as a shareholders' bank. Its share capital was Rs. 5 crores, divided into shares of Rs. 100 each fully paid. The whole of India was divided into five regions, and a definite share capital was assigned to each of them, to be subscribed by the inhabitants of that region. But after the World War II, there was a strong agitation for the nationalisation of the Reserve Bank, with the result that the Central Government took over the ownership of this Bank on January 1, 1949. For every share of Rs. 100, the Government paid a sum of Rs. 118-10-0. As such, the Reserve Bank is now a Government institution. Its share capital still continues to be Rs. 5 crores; but now it is held by the Government of India, instead of private shareholders as before.

Its Management

The general superintendence and direction of the business of the Bank is entrusted to a Central Board of Directors. According to the Reserve Bank (Transfer to Public Ownership) Act of 1948, this Board has 14 directors as follows: (a) 1 Governor and 2 Deputy Governors; (b) 4 directors nominated from 4 Local Boards*; (c) 6 directors nominated by the Central Government; (d) 1 Government official. All of them are nominated by the Central Government.

Its Functions

The functions of the Reserve Bank may be discussed under (A) Central Banking Functions; (B) General Banking Functions; and (C) Restrictions on its Business.

(A) *Central Banking Functions.* Like all other Central Banks, the Reserve Bank of India performs the following central banking functions:

(i) It acts as a *banker to the Government*. The Reserve Bank Act requires it to accept money for various Government bodies and make payments up to the amount standing to the credit of their respective accounts; and carry out their exchange, remittance and other banking operations including the management of the public debt.

*They are from Northern, Southern, Eastern and Western Local Boards.

(ii) It is a *'bankers' bank*. Other banks of the country are required to maintain with it certain cash reserve and evidently the Bank is expected to help them in times of financial stringency.

(iii) *It issues paper currency*. The sole right to issue bank notes in India is vested in the Reserve Bank. It now conducts the issue of bank notes in an Issue Department which is kept wholly separate from the Banking Department.

(iv) The Bank is also charged to *maintain the rupee sterling ratio* nearabout 1s. 6d.

(B) *General Banking Functions*. The Bank is authorised to transact the following commercial business :

(i) The acceptance of money on deposit without interest.

(ii) The purchase, sale and rediscount of bills of exchange and promissory notes with certain restrictions.

(iii) The making of loans and advances for not more than 90 days against the security of stocks, gold, bills, etc.

(iv) The purchase from, and sale to, Scheduled Banks of sterling (in amounts of not less than the equivalent of Rs. 1 lakh.)

(v) The making of advances to local Government for not more than 3 months.

(vi) The purchase and sale of Government securities of the United Kingdom maturing within ten years from the date of purchase and those of the Government of India, Local Governments, and Local authorities.

(C) *Forbidden Business*. The Bank is not allowed to engage in trade in the ordinary course of business. It is also debarred from advancing money on the mortgage of immovable property. It cannot draw or accept bills payable otherwise than on demand. Nor is it permitted to allow interest on deposits. These restrictions are placed to keep it financially sound and to check it from competing with other banks of the country.

Agricultural Credit Department

The Bank, under the Act, has created an Agricultural Credit Department with the object of studying the problem of rural credit, improving the machinery for dealing with agricultural finance and effecting a closer connection between indigenous bankers and modern banking system. But so far very little has been done in this direction.

QUESTIONS

1. What do you mean by money market? What are the constituents of the Indian money market?

2. Who are indigenous bankers? Discuss their functions and show if they are really bankers.

3. Compare indigenous banking system with the modern banking system. What are their merits and defects. Lay down the methods of their improvement.
4. What are commercial banks ? Discuss their position in this country and the methods of their improvement.
5. Discuss the functions of industrial and land mortgage banks, with special reference to India.
6. Discuss exchange banks and savings banking institutions working in this country.
7. Discuss the functions and working of co-operative credit institutions in this country.
8. What is Reserve Bank and what are its functions ? How far does the Reserve Bank of India perform these functions ?
9. Describe the capital, management and functions of the Reserve Bank of India.

EXAMINATION QUESTIONS

U. P., Int. Arts

1. What are the main functions of a central bank ? How far does the Reserve Bank of India fulfil them ? (1951)
2. Write a note on Sahukari and Sarafi System of Banking. (1951)
3. Describe the principal functions of (a) Reserve Bank of India and (b) Imperial Bank of India. (1949)
4. Explain carefully how banks help production. Describe the function of Indigenous Bankers in India. (1948)
5. Briefly describe the constitution and functions of the Reserve Bank of India. (1946)
6. What are the main types of banks that work in India ? Discuss briefly their respective functions. (1936)

Raj., Inter. Arts

7. Explain fully the chief functions of the Reserve Bank of India and the Imperial Bank of India. (1949)
8. Examine the usefulness of linking the indigenous banks with the modern banking system in the country. (1948)
9. What are the services performed by a bank ? Is the village mahajan in India a banker in the true sense of the term ? Give reasons for your answer. (1944)
10. Describe the business of exchange banks in India. Why is the discounting of bills of exchange considered to be a suitable form of investment by banks ? (1943)
11. Write a note on Indian Joint Stock Bank. (1943)
12. Write a note on the Indigenous Bankers (1942)
13. Explain the main object for which the Reserve Bank of India was started. (1940)

Raj., Int. Com.

14. What are the chief functions of (a) the joint stock banks, (b) the indigenous banks in India ? Discuss. (1949)
15. Describe briefly the Indian Banking System, pointing out specially the importance of Reserve Bank of India. (1948)
16. What are the functions of a bank ? Briefly describe the India Banking System. (1947)
17. Write a note on Sahukari and Sarafi System. (1946)

Patna, Int. Arts

18. Describe the functions of banks with special reference to Indian conditions. (1946 A)

Banaras, Int. Arts

19. Describe briefly the functions of commercial banks. Name four important commercial banks working in India. (1949)

20. Write a note on Shroffs and Mahajans. (1947)

Sagar, Int. Arts

21. State the constitution and functions of the Reserve Bank of India. (1950)

Nagpur, Inter. Arts

22. Write a note on the Banking Organisation of India. (1949)

23. Explain the important functions of the Reserve Bank of India. How does it differ from a private commercial bank? (1948)

24. Write a note on Foreign Exchange Banks in India. (1948)

Andhra, Int. Arts

25. Examine the part played by Exchange Banks in India in Foreign Exchange. (1950)

26. What are the functions of an ideal Central Bank? Examine how the Reserve Bank of India is functioning as such. (1950)

27. Examine the different classes of banks that you come across in your province giving a short description of each of them. (1950)

Travancore, Inter.

28. Describe the main functions of any two of the following banks in India : (a) Co-operative Banks, (b) Indian Joint Stock Banks, (c) Exchange Banks. (1943)

29. Describe clearly the distinctive features of Indigenous Banking in India. (1943)

Delhi, Higher Secondary

30. Discuss briefly the causes of bank failures in India and examine in this connection the main defects of the Indian banking system. (1951)

31. Write a note on Land Mortgage Banks. (1951)

32. Compare the functions of joint stock banks in India with those of indigenous banks. Which do you think are more useful to India? (1949)

33. Write a note on the Indian Money Market. (1949)

34. Describe the functions of the Reserve Bank of India. Indicate its importance to the banking system of our country. (1948)

CHAPTER 54

RURAL INDEBTEDNESS

One peculiar feature of agricultural indebtedness is that it is in most cases a mark of distress whereas in the case of other industries, borrowed finance is a normal feature. As the loans are mostly for unproductive purposes, the pressure of indebtedness falls heavily on the *raiya*.—*Bengal Provincial Banking Enquiry Committee Report*.

The question of rural indebtedness is one of the most important economic problems of our country. The prosperity of the country depends fundamentally upon agriculture, for most of its inhabitants are engaged in this occupation. But agriculture is held up in its march to progress by the heavy weight of indebtedness. An effective solution of the problem of rural indebtedness is the first step of our economic progress.

Extent of Rural Indebtedness

The total rural indebtedness of India has been estimated from time to time. The Central Banking Enquiry Committee, 1931, put the figure at Rs. 900 crores as a rough estimate.¹ After that Indian agriculture passed through the ordeal of the economic depression of 1929, which increased this indebtedness appreciably. Before the World War II the figure was moderately put at Rs. 1,000 crores. However, during the period of the World War II, the prices of agricultural produce substantially increased, and cultivators in India made profits. As such, they began to repay their debt. Recently some investigations made into the problem indicate that rural indebtedness has recently declined in India. But the quantity of rural indebtedness at the present time in the whole of the country

¹ The provincial distribution of this indebtedness was as follows :—

	Rs. Crores
Bihar and Orissa	155 "
Madras	150 "
Punjab	135 "
Uttar Pradesh	124 "
Bengal	100 "
Bombay	81 "
Burma	50-60 "
Madhya Pradesh	36 "
Assam	22 "
Central Areas	18 "
Coorg	35-55 "

(Vide *Central Banking Enquiry Committee Report*, para 77.)

has not yet been estimated at an authoritative level. Hence the amount of rural indebtedness today cannot be definitely stated. Some of the investigations made are as follows :—

(i) The Bombay Provincial Co-operative Institute examined the indebtedness of the members of co-operative societies in Carnatak and Deccan region.

(ii) Dr B. V. Narayanswamy investigated the rural indebtedness in the State of Madras.

On the basis of these studies it can be stated that rural indebtedness has certainly decreased in quantity recently. According to Dr. Narayanswamy, the rural indebtedness of Madras has decreased by about 20%. Assuming that rural indebtedness in the whole of the country has declined to the same extent, the present-day estimate of this indebtedness would come to about Rs. 750 or Rs. 800 crores.

In this connection, it should be noted that big and middle class cultivators have repaid a good portion of their debts; but small cultivators have not been able to pay any substantial part of their debt.* Hence the reduction in this indebtedness has not been shared by majority of cultivators. As such we can safely say that the problem of rural indebtedness is more or less the same today as it was some years back, say, before the World War II. Besides this, it is also quite possible that such reduction in indebtedness as has taken place, is only transitory and for short period. As and when the prices of agricultural commodities decline, it is quite likely that the quantity of rural indebtedness might increase. In conclusion, then, we might say that the problem of rural indebtedness has not become less serious than before and it deserves serious consideration.

The Causes of Rural Indebtedness

The principal causes of this colossal indebtedness of the rural population are several and act and react on one another. The more important of them are :

1. *Ancestral Debt.* The most important and common reason is the past indebtedness². Men born in debt are found making every feasible effort to pay the debt of their fathers and fore-fathers. They are probably ignorant of the law that the debts of the deceased pass on to the heir only to the extent of the property inherited by the latter; and if no property is inherited, no liability to pay the debt of the deceased exists. Even if this knowledge is presumed, the force of social customs and traditions is so compelling as to make them regard the payment of the ancestral debt a "pious obligation."

*Report of the Rural Banking Enquiry Committee (Delhi, 1950), p. 36.

² This was also the opinion of the Deccan Riots Commission, 1875, and the Central Banking Enquiry Committee, 1931.

2. *Pressure of Population on Land.* In addition to the ancestral debt that cultivators inherit, they themselves incur financial liabilities for a variety of reasons. An important reason is that income from agriculture is usually insufficient to maintain them and their family. One of the reasons of this state of affairs is the excessive pressure of population on land; the number of people depending upon agriculture for their livelihood is too great to give them living incomes. Consequently they have to borrow from *mahajans* to keep themselves alive.

3. *Sub-division and Fragmentation of Holdings.* Another reason why agriculture is not sufficiently remunerative is the smallness and scatteredness of holdings, which make farming uneconomic and borrowing inevitable.

4. *Poor Physique of the Cultivator.* Moreover, the cultivator has a weak constitution and is, therefore, inefficient. At certain seasons of real work, he falls a prey to various major and minor diseases and becomes weaker still. His contribution to production is, as such, much less than what is necessary for his maintenance.

5. *Floods, Famines, Diseases and Other Calamities.* Indian agriculture is subject to a large number of calamities like floods, shortage of rains, locusts, pests and diseases, etc. They inflict economic injury on the cultivator in two forms. Firstly, his harvests are damaged and often show poor results. It has been found that in a cycle of five years, one year is good, one bad and three indifferent. Secondly, lack of fodder and diseases like rinderpest take a heavy toll of the cattle of the cultivator. Cattle constitute the most important and costly capital of the cultivator and their loss causes considerable financial embarrassment to him. In either case, he has to go to his *mahajan* who exploits him according to his sweet will.

6. *Extravagance of the Cultivator.* To the agriculturist's extravagant expenditure upon marriage and domestic ceremonies is attributed a fair part of agricultural indebtedness. But several Provincial Banking Enquiry Committees thought that the picture of extravagance is generally overdrawn. Usually he is very economical and frugal; he semi starves himself and remains half-naked. But on the few occasions of happiness or ceremonies, he certainly spends money quite disproportionately to his income.

7. *Litigation.* Indian cultivators are very fond of litigation. They show an attachment not only to civil suits but also to criminal suits of diverse character. The peace and harmony of olden days have disappeared and *panchayats* have lost importance. Their place has now been taken by quarrels and disharmony and resort to pleaders who foment litigation and exploit cultivators.

8. *Land Revenue Policy.* Some economists believe that the land revenue realized from cultivators is so heavy and so rigidly collected that they cannot pay it in time without invoking the aid of money-lenders. R. C. Dutt first propounded this view and many thinkers agree with him even now.

9. *Inefficient Rural Credit Organisation.* The present mechanism for supplying credit to cultivators is full of many defects and contributes its own quota to the rural indebtedness. The only source from which loans can at present be had is the house of the village *mahajan* who, besides following many sharp practices and unjustly magnifying the loan, charges usurious rates of interest, which increase the original debt many times over. Once the cultivator comes to the room of the *mahajans*, he becomes a life-long debtor and passes on his debt to his offspring. Co-operative credit societies have not yet made sufficient progress in our country.

10. *Changed Position of Cultivators.* The establishment of the British rule let loose many economic forces like the extension of trade and increase in transport facilities, which pushed up the prices of agricultural land. The value of the security (land) having thus enhanced, the borrowing capacity of the cultivator also went up. He was not slow to take advantage of it and borrowed freely for all sorts of purposes, productive and unproductive, often beyond his capacity to pay it back.

The Attendant Evils

To this state of indebtedness are attributed many of the evils to which the peasant is now subject. Indebtedness has led ultimately to the transfer of land from the agriculturists to non-agricultural money-lenders resulting in the creation of a landless proletariat with a reduced economic status. Moreover, the terms on which loans are given often require the borrowers to sell their produce to, or through, the money-lenders. Sometimes even the price of the produce to be sold is fixed beforehand. It need not be said that the money-lenders give as low a price as they can. Finally, money-lenders impose such unjust charges and exact such services that borrowers are virtually reduced to the level of serfs. These practices are, fortunately, on a decline.

Analysis of the Problem and Remedies

The problem of rural indebtedness can be split up into two parts : (1) The problem of the standing debt, and (2) the problem of the new debt.

(1) The standing debt is mostly ancestral. This debt goes on accumulating at compound rates of interest so rapidly that it soon multiplies itself several times; and cultivators gradually lose the hope

of being free from its burden. The standing debt must be redeemed. Some useful work is being done in this connection by land mortgage banks organised on co-operative principle. Further establishment of these banks, on co-operative or joint stock principle, should be encouraged. Land mortgage banks, however, give loans at low rates of interest for redeeming standing indebtedness *only against the security of land*; and those who cannot offer this security have no way of getting rid of their standing debt. The problem must be solved earnestly and effectively on the lines suggested by the Banking Enquiry Committees, Royal Commission on Agriculture, etc.

(2) The problem of current debt must also be solved. The present sources of the supply of credit are very defective and lead to further indebtedness in a never-ending fashion. Efforts must be made to remove the defects of the existing mechanism. Much can be done by starting co-operative credit societies. The establishment of branches of modern banks in the interior can also be a source of much help. Something has already been done along these lines and the results, though not extensive, show signs of hope.

Government Legislation

The various State Governments have been trying for some time past to reduce the extent of rural indebtedness in India. Legal enactments passed by them thus far can be divided into three classes :

(i) *Provision of Direct Government Loans.* In the last two decades of the 19th century, the Government wanted to solve this problem by providing finance to cultivators directly. With this end in view, Takkavi Acts, Land Improvement Loans Acts and Agriculturists' Loans Acts were passed. Takkavi loans were meant only for specified purposes, mostly current needs; and moreover there was considerable delay in granting loans, besides the exactions made by petty officials. Hence they are very unpopular. Long-term loans for permanent improvement were granted under Land Improvement Loans Acts, but loans were not available for redemption of old debts and consolidation of holdings. At any rate, the financial resources of the Government being limited, much could not be done, and cannot be done, by this method.

(ii) *Control of Money-lenders.* Efforts were subsequently made by the various Governments to control money-lenders by means of legislation. The Deccan Agriculturists' Relief Act of 1879 allowed the court to reduce the rate of interest and prevent the sale of land. The Punjab Land Alienation Act of 1901 disallowed the transfer of land to non-cultivating classes. But the most drastic Acts generally called Moneylenders' Acts have recently been passed by most of the states. Under these, money-lenders have to obtain a licence, keep proper books of accounts, charge interest up to a maximum limit, and desist from molestation and intimidation of debtors. Generally,

total interest cannot exceed the principal. These Money-lenders' Acts have, however, not been wholly beneficial. Many money-lenders have been frightened away and the cultivator has to sell his properties now to obtain cash when needed. Money-lenders can, however, evade this Act by charging high rates of interest by oral agreement or by writing promissory notes for fictitious amounts. Moreover, villagers are not acquainted with this legal safeguard that is available to them.

(iii) *Debt Conciliation Legislation.* Efforts have at the same time been made to pass legislation for reducing the outstanding old debt. Most of the states have passed suitable legislation for creating Debt Conciliation Boards which are meant to scale down debts under mutual agreement. In U. P. such an Act was passed in 1939. However, even when debts are scaled down, cultivators do not always find it possible to keep on paying instalments as agreed. Moreover, this method does not prevent further accumulation of indebtedness.

QUESTIONS

1. State the causes of rural indebtedness in this country.
2. Give an estimate of total rural indebtedness in this country. How can this problem be solved?
3. How far Government legislation has been successful in solving the problem of rural indebtedness?

EXAMINATION QUESTIONS

U. P., Int. Arts

1. Discuss the existing arrangement for meeting the credit needs of the cultivators in India. What improvements do you suggest in those arrangements? (1950)

2. What are the causes of rural indebtedness in India? How far have the co-operative credit societies succeeded in solving this problem. (1944)

Raj., Int. Arts

3. What are the causes of rural indebtedness in our country? How far has the co-operative credit movement succeeded in solving this problem. (1949)

Sagar, Int. Arts

4. Explain the main causes of rural indebtedness in India and suggest some remedies. (1950)

Punjab, Inter.

5. What do you know of the nature, extent and causes of rural indebtedness in India? What steps have so far been taken to check the increase of rural indebtedness? (1948)

Delhi, Higher Secondary

6. Discuss the part played by the money-lender in the rural economy of India. How far do you agree with the slogan, "Down with the money-lender"? (1951)

7. It is said that the amount of rural indebtedness in India today is much less than what it was in 1937. Which of the following do you think is most responsible for this: (a) co-operative movement, (b) high prices of agricultural produce during 1937-48, (c) improvement in agricultural productivity? (1949)

CO-OPERATION IN INDIA

Co-operation is a special form of economic organisation in which the people work together for definite business purposes under certain definite business rules. The root of the co-operative idea is a relation between business and ethics which is greater than the necessary commercial honesty of our present industrial system. —*Garden and O'Brien*.

§ 1. INTRODUCTORY .

Meaning of Co-operation

Co-operation is a voluntary organisation of persons who associate on equal terms for the satisfaction of their common economic needs. To co-operate literally means to work together; but co-operation in Economics implies that the association is voluntary, that the members have equal standing and that the object is the satisfaction of some economic need. The fundamental object of co-operation is the elimination of the middlemen of all kinds and the abandonment of competition.

Fields of Its Application

Co-operation has a wide field of application. In fact, wherever middlemen exist and wherever they can be possibly and profitably eliminated, co-operation can be applied with advantage. Specifically, co-operation is of the following kinds :

1. *Consumers' Co operation.* The object of consumers' co-operation is to enable consumers to purchase the articles of their consumption as cheap as possible. The co-operative society, in this case, purchases articles at wholesale rates and sells them cheaply to the members. Any profits made during the year, after meeting all expenses, are divided among the members in proportion to the purchases made by them. Shopkeepers are thus eliminated.

2. *Productive Co-operation.* It is an association for producing certain goods. The members themselves are the labourers and work through an elected committee. The profits made during the year are divided among the members. This form of co-operation eliminates organisers and entrepreneurs.

3. *Credit Co-operation.* It is meant to meet the credit requirements of the members on the basis of the credit and resources of all of them collectively. Since all the members incur personal liability for the debt, the credit of the group is thorough,

and consequently money can be borrowed at low rates of interest. Credit co-operation eliminates money-lenders. Credit co-operation is the most popular form of co-operation in India.

4. *Miscellaneous Co-operation.* Then, there are a host of other forms of co-operation, e. g., sales co-operation, housing co-operation, insurance co-operation, etc.

Schulze-Delitzsch and Raiffeisen

Germany and Denmark are the two countries in the world in which co-operation has made outstanding progress. The idea of co-operation originated in Germany during the last century, when German agriculturists and artisans were helpless victims of money-lending Shylocks. Their pitiable state made a deep impression on Messrs Schulze-Delitzsch and Raiffeisen who tried to improve the matters by starting co-operative societies. The former started urban co-operative credit societies to help petty traders and artisans; and the latter, rural co-operative credit societies to assist small cultivators. Our credit societies have been modelled after Schulze-Delitzsch and Raiffeisen types. We should, therefore, know the important features of each of them.

In a Raiffeisen society, the area of operation is limited. Generally shares are not issued; it is only rare that shares of very small value, within the reach of everybody's pocket and free from the danger of dividend-hunting, are allowed to be issued. Members have unlimited liability so that they may proceed with maximum vigilance and the credit of the society may be excellent. Loans are given only to the members and for productive purposes. Loans are granted for relatively long periods and facility for repayment by easy instalments is provided. Profits are not divided but are credited to a permanent and inalienable reserve fund. The management is honorary and democratic. *Limited area of operation, lack of share capital, unlimited liability, non-issue of loans to non-members and for unproductive purposes, indivisibility of profits and honorary management are then the chief features of the Raiffeisen society.* Co-operative societies in our rural areas are mostly based on this principle.

In a Schulze-Delitzsch society, the area of operation is wide. It also possesses a share capital. The liability of the members is limited. The credit is provided only for short terms. Profits are divided among the share-holders, only a part being transferred to the Reserve Fund. The management is paid. *A wide area of operation, existence of capital, limited liability, short-term loans, divisibility of profits and paid management are the essential features of the Schulze-Delitzsch society.* This is a suitable basis for urban co-operative societies.

Advantages of Co-operation

Co-operation can be of very great benefit to our country. People of rural as well as urban areas can apply the principle of co-operation to their very great advantage.

The following are the chief advantages that can accrue to villagers: (1) Their one important problem is to obtain credit for short term at a reasonable rate of interest. If the co-operative credit societies work properly, they can give short-term loans on moderate rates of interest. Today the money-lender is more or less the only source of credit in rural areas; and he takes advantage of the situation by charging a high rate of interest. Besides, he does not receive any deposits and mostly lends out of his own capital. Limitation of funds also prompts him to charge a high rate of interest. As against this, the object of a co-operative credit society is not to make maximum profit but to give loans to members at low rates of interest. In fact, they are the societies of cultivators themselves and are meant for their benefit. Their funds are not also limited because in addition to their own capital, they can borrow money from State Co-operative Banks. It is also important to remember that joint stock banks are not in a position at the present time to open their branches in rural areas. The current expenses of a branch office are heavy; and can be justified only if the scale of business is sufficiently large, which is impossible in a village. Moreover, most of the business of such banks is done in English, whereas most of our cultivators are illiterate. This increases the value and importance of co-operative credit societies in our rural areas. (2) The second important problem of villagers is to obtain credit for long period with the object of repayment of their accumulated debt and for permanent improvement like digging wells, purchasing implements, and so forth. Co-operative credit societies can take up this work also and discharge it satisfactorily. (3) Villagers can also form co-operative societies for purchasing seeds, manure, implements, etc., at low prices, for selling their crop at high prices, for consolidating their holdings, and so forth; and thus derive from them considerable benefit.

Urban population can as well apply the co-operative principle usefully. The needs of urban population are of different nature and types; and to meet them different types of co-operative societies can be set up. Some of them are mentioned below: (1) Artisans require short-term loans at low rates of interest, raw materials of good quality, and a satisfactory sales organization for their products. For this, they can set up credit and sales co-operative societies. (2) Consumer Co-operative stores are useful to all the consumers since they supply good quality articles

at prices which are ultimately below the market prices. (3) Co-operative societies can also be formed for constructing buildings, for organizing production, for purchasing certain things, or for sales.

§ 2. HISTORY OF CO-OPERATION IN INDIA

Co-operation was officially set up in India in 1904. Attempts were made to establish co-operative societies in India even before that year but they were either shelved or met with poor success. All these attempts, it may be remarked, were made to attack the problem of *rural credit*. The first suggestion in this connection came from Sir William Wedderburn and Mr. Justice Ranade whose scheme of agricultural banks, though accepted by Lord Ripon, was turned down by the Secretary of State for India. Again in 1892, Sir Fredrick Nicholson submitted his *Report on Land and Agricultural Banks* to the Government of Madras which he summarized in two notable words: "*Find Raiffeisen*". He recommended the establishment of rural co-operative credit societies of the Raiffeisen type. But the Government took no action on his report thinking that the problem of rural credit was not important in Madras. Mr. Dupernex of U. P. Civil Service continued the discussion initiated by Sir Fredrick and published his well-known book, the '*Peoples' Bank for Northern India*'. Some societies were also started in the Uttar Pradesh; Bengal and the Punjab. But as these attempts were sporadic and no facilities were provided for the growth of the movement, its progress was little. In 1901 the Government appointed a Committee to consider the question of the establishment of Agricultural Banks in India and the report of this Committee resulted in the enactment of the Co-operative Credit Societies Act of 1904.

The Co-operative Societies Act, 1904

The co-operative movement was launched in India on the 25th March, 1904. The Act of 1904 made provisions for the formation of credit societies only, partly because the problem of credit was one of the most pressing problems and also because the principles of co-operation could be easily learnt in the simple field of credit societies to be applied to other difficult fields later on, though the Central Banking Enquiry Committee assert that the restrictive scope of the Act of 1904 was just "a slip". Special emphasis was laid on rural, rather than on urban, credit.

According to the provisions of the Act, any ten persons, from the same village or town, or of the same tribe or caste, could apply to form themselves into a co-operative credit society. If the four-fifths members were agriculturists, the society was a Rural Co-opera-

tive Credit Society, and was to be organised on the lines of the Raiffeisen Society. All other societies were named the Urban Co-operative Credit Societies and were to be modelled after the Schulze-Delitzsch type.

The members of the rural society were to have unlimited liability and all its profits were to be carried to a permanent Reserve Fund. The urban society was allowed to work on the principle of limited liability, to divide $\frac{4}{5}$ ths profits among the members, carrying only $\frac{1}{5}$ th to the Reserve Fund. The size of the share capital, if raised at all, was restricted. The societies were expected to raise the working capital from entrance fees, deposits from the members, shares and loans from outside sources. Loan could be given only to members. The Government reserved the power of compulsory inspection, audit and dissolution.

The Co-operative Societies Act, 1912

The progress of the movement subsequent to the enactment of the 1904 Act was remarkable. The movement soon outgrew the scope of the Act and another Act was passed in 1912. This Act remedied the defect of its predecessors, authorized the registration of societies for purposes other than credit, and substituted a scientific classification of societies based on the nature of the liability, for the arbitrary one into rural and urban. It also recognised (i) *Unions*, consisting of primary societies for mutual control and audit, (ii) *Central Banks*, composed of societies and individuals, and (iii) *Provincial Banks* made up of individuals. It is noteworthy that in spite of the removal of the limitations imposed by the original Act, and the legal creation of several forms of non-credit societies, the preponderating element in Indian co-operation is still credit.

The MacLagan Committee and After

The new Act had a stimulating affect on the movement in India. In 1914, *MacLagan Committee on Co-operation* was appointed; and the movement entered on its third stage of development after the publication of the classic report of this Committee in 1915. The report led to the re-organisation and overhauling of the administration of co-operative societies. All the societies which failed to reach the ideal of co-operation were eliminated. Punctuality in repayment was insisted upon. The non-official share of the movement began to increase.

Government of India Act, 1919

In 1919 the Government of India Act was passed and co-operation became a state (provincial) subject under a Transferred Department.

The movement thus entered on the fourth stage of its development since it now began to be administered by the ministers of the State Governments. Much interest began to be evinced in the subject and immediately there was a large addition to the number of societies all over India.

Since then much improvement has taken place. An important line of development has been the appointment of Co-operative Enquiry Committees by various states. A committee was appointed in Madhya Pradesh in 1922 and Bihar and Orissa followed suit in 1923. A few years later the Okden Committee conducted a similar enquiry in the Uttar Pradesh; and the Townsend Committee in Madras. Such enquiries have led to consolidation and reorganization of the co-operative societies. Many states have legislated new co-operation laws. Much emphasis has also been laid on non-credit co-operation. In 1926 the *Royal Commission on Agriculture* and in 1931 the *Indian Banking Enquiry Committee* submitted valuable reports and their recommendations have led to a tightening up of supervision, an extension of land mortgage banking and efforts to meet the growth of overdue loans. The seed thus sown in 1904 has grown today in the course of about 50 years into a fine tree with twigs and branches spread out in many directions.

§ 3. THE PRESENT POSITION

The Co-operative Structure

Co-operative societies can be of two types: Primary and Central. The principal function of Central Co-operative Societies is to help Primary Co-operative Societies. It is the latter which do most of the work. They can truly be called the foundation of the co-operative movement in India. There are about 1,000 Central Co-operative Societies in India; and there are 1·71 lacs of primary co operative societies.

Sub-classes of Primary Co-operative Societies. Primary co-operative societies are found in rural as well as urban areas. The co-operative movement in India was started primarily for the benefit of the rural population. As such, most of the existing co-operative societies operate in villages. There are about 1·47 lacs primary co-operative societies in villages, as against 0·24 lacs (*i.e.*, 24,000) in cities. As such, primary societies can be sub-divided into rural and urban societies. Again, they can be subdivided according to their being credit or non-credit societies.

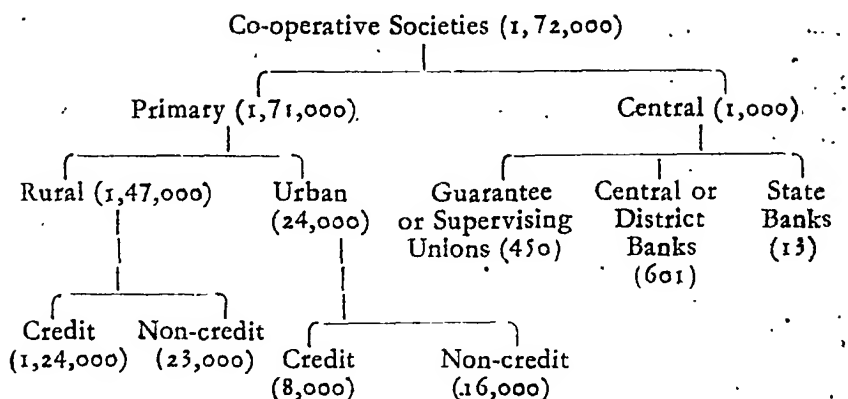


Chart 26—Co-operative Societies in India in 1945-46.

It is clear from the above chart that the main role of co-operative societies in India has been to supply credit to rural population.

Sub-classes of Central Co-operative Societies. Central co-operative societies are meant to help the primary societies. These are of four types : (a) *Guarantee Unions* which guarantee the repayment of loans taken by primary societies ; (b) *Supervisory Unions* which supervise the working of primary societies ; (c) *Central or District Bank* which exists in every district and which gives loans to co-operative societies in that district ; and (d) *Provincial or State Bank* which gives credit to the district banks working in a state. All State Banks have formed themselves into an Indian Provincial Co-operative Banks' Association which keeps an eye on the working of all the State or Provincial Banks and through which these banks help each other in times of need. Hence, from the point of view of control, the position of the co-operative movement in India is as follows :

Indian Provincial Co operative Banks' Association



Provincial Co-operative Banks of
Different Provinces



District Co-operative Banks
in Districts of Each Province



Primary Co-operative
Societies in Localities in Each District

Agricultural Co-operative Credit Societies

We will first discuss Agricultural Co-operative Credit Societies. The foundation of this movement is constituted by the PRIMARY SOCIETIES with which we deal below in detail.

(1) *Size of the Society.* Any ten persons can organize a rural credit society. The number of members should not be very large as it deteriorates efficiency.

(2) *Area of Operation.* The area of operation of a society should not be wide. As a rule, there should be one society in each village so that members might know each other fully well and exercise mutual control. This is necessary as the liability of the members is usually unlimited.

(3) *Liability.* The liability of the members is unlimited. If some members wish to keep their liability limited, they have to take special permission from the Government. Every member of a primary society is individually and collectively liable for all the liabilities of the society without any limit. This principle of unlimited liability enhances the credit standing of a society. Moreover, members with unlimited liability exercise proper vigilance in giving loans because they know that if any debtor does not pay back the loan, they will have to bear the loss themselves. Therefore, every loan is given after proper scrutiny and after full assurance that the borrower will use the loan for some productive purpose. Besides this, the members also then insist upon punctual repayment of loans, which results in timely repayment. As such, the principle of unlimited liability is in the interests of members.

(4) *Management.* The management of the Primary Agricultural Co-operative Society is honorary. There is usually a General Committee consisting of all the members and a Managing Committee of the selected few for carrying on routine and executive business.

(5) *Working Capital.* The society obtains the working capital in the shape of entrance fees, deposits by members, share capital, if any, and surplus assets in the Reserve Fund. These are the internal sources. The external sources of capital are loans and deposits from other societies, from Government and from Central and Provincial Co-operative Banks.

(6) *Objects of Loans.* Loans are given primarily for productive purposes and for the redemption of past indebtedness. Loans for unproductive purposes should not be theoretically given but they are granted lest the villagers might fall into the clutches of money-lenders.

(7) *Rates of Interest.* Loans are granted at low rates of interest. This is indeed the chief object of such societies. But rates should not be very low lest they might make members reckless in borrowing.

(8) *Repayment.* Debts are to be repaid in easy instalments and punctuality in payment is stressed upon. The time of repayment is

made to coincide with the time when the agriculturist is in the possession of funds.

(9) *Security*. Strictly speaking, no security should be taken from the borrowers and their honesty should be relied upon. But, in practice, sureties from amongst the members are furnished and collateral security is also demanded.

(10) *Profits*. In the absence of share capital, the entire profit is credited to the Reserve Fund. But where there is a share capital, a part is allowed to be distributed amongst the share-holders. Sometimes a fraction of profits is permitted to be spent on religious and educative purposes.

(11) *Supervision*. The working of societies is subject to minute supervision and audit of the Registrar of Co-operative Societies. He appoints Auditors and Inspectors for this purpose. Supervising unions also do creditable work in this connection.

Failure of Rural Co-operative Credit Societies. It is a matter of regret that the co-operative credit movement in India has been a failure. There are several indications of this failure: (i) The total real capital of these societies is only Rs. 30 crores, an amount altogether inadequate for our cultivators. (ii) The loans given by them are not always productively used. Very often cultivators spend the loans they take on marriages, festivals, etc. The consequence is that they cannot repay the loans. (iii) A part of their total loans is not realized and becomes bad debt. It has been estimated that about one-third of the loans given by these societies is not realised. (iv) Finally, the sahuکار still has an important position in the village economy as he continues to be indispensable as supplier of rural credit.

2. Agricultural Co-operative Non-Credit Societies

Some co-operative societies working in rural areas transact some non-credit business as well. They are set up for obtaining implements, manures and seeds at low prices, for the consolidation of holdings, and for other similar purposes. But such societies have not yet proved a success.

3. Non-Agricultural Co-operative Credit Societies

Credit difficulties exist not only in rural areas but also in cities and towns. Particularly when prices rise, wages are held in arrears, or standard of living increases, labourers and artisans feel the necessity of borrowing money. To solve this problem many non-agricultural co-operative credit societies of the Schulze-Delitzsch type have been started in various states and are making fair progress. People's Banks are also to be found in some cities, which are meant to give

loans to businessmen, artisans and factory-owners doing business on small scale. Such banks have done useful work in mobilising small savings.

Non-agricultural Co-operative Non-Credit Societies

In urban areas, non-credit co-operation has made greater progress than credit co-operation. Non-credit co-operative societies are of several types. They have made successful attempts to purchase at cheap rates suitable types of yarn and silk for weaves, cane for basket-makers, timber for carpenters and implements for artisans of all classes. They have often been opened for purpose of insurance. One also comes across Building Co-operative Societies and Consumers' Co-operative Stores. Of these, Consumers' Co-operative Stores are very important and have been discussed in detail in 4§ below.

Advantages of Co-operation in India

The co-operative movement in India has not yet developed to the fullest extent and the little progress that has been made is not free from defects. Still the movement has conferred many advantages which may be briefly summarized below :

(1) *Economic Advantages.* We have already discussed the economic advantages of the agricultural credit co-operation, which is the heart and soul of the movement, in a previous chapter.⁴ Other branches of the movement have not been barren of useful results. Agricultural non-credit societies have done much to popularize improved seeds, cattle, cheap manures and implements. The problems of sanitation and medical relief have also been tackled. Non-agricultural societies, though few, are doing quite good work and are ameliorating the lot of factory labourers, depressed classes and persons of all sorts and conditions.

(2) *Moral Advantages.* Besides economic advantages, the movement has toned up the standard of morality of its members. It has inculcated the spirit of economy and thrift. Much of the litigation, which had hitherto been a drain on time, energy and money of the poor, has stopped; the disputes are now settled by arbitration. Besides, a man of loose character and doubtful morality is not allowed to become a member of the society; and this restriction has tended to correct moral degradation to some extent. As Darling observes, "Litigation and extravagance, drunkenness and gambling, are all at a discount in a good co-operative society and in their place will be found industry, self-reliance and straight dealing, education and arbitration societies, thrift, self-help and mutual help".

(3) *Educative and Administrative Advantages.* The co-operative movement has educated people in diverse ways. A member of the

⁴See Chapter, 52, *ante*.

co-operative society has the privilege of attending its meetings, and he has to understand its rules and regulations. If he is appointed to a responsible post, he has to make a closer study of the whole affair. Thus his intelligence is stimulated and his power of reasoning and understanding quickened and refined. In many cases, the necessity to read entries in pass-books, or to make signatures, has encouraged literacy. Side by side, a unique system of imparting education in administration and democracy has been provided and is bearing good fruits.

(4) *Social Advantages.* The movement has benefited society in more than one way. The principle of unlimited liability calls for mutual vigilance and conditions public opinion against thriftlessness and extravagance. Thriftlessness on the occasions of marriages and other domestic ceremonies are thus held in check. Much benefit has also resulted from the improvement in drainage system, the repairing of wells, the provision of medical relief, etc., organized under the auspices of co-operative societies.

Defects in the Co-operative Movement in India

The following are the important defects of the movement :

(1) *Neglect of Non-Credit Societies.* The co-operative movement has not made sufficient progress in our country. The only problem to which the movement has mainly addressed itself is that of rural credit; and here too the work that has been done "amounts only to a scratching of the surface." This is the greatest shortcoming of the movement. There are several other spheres like sanitation, construction, purchase, sale and others, to which co-operation can be extended with advantage.

(2) *Lack of the Principles of True Co-operation.* There is a deplorable lack of the understanding of the principles of true co-operation. People have not yet entered into its true spirit and regard it merely as an ordinary credit agency. They somehow feel that it is a Government movement and the Government have some ulterior motive behind it.

(4) *Mismanagement.* There is a good deal of mismanagement of the co-operative societies. As the Royal Commission on Agriculture pointed out, members of societies delay payments even when able to repay; office-holders refrain from taking action against defaulters; and the spirit of self-help is not prominent. Even when defects are obvious and admitted, there is reluctance, as dangerous as it is regrettable, to liquidate societies whose condition is beyond remedy. In particular, the economic purpose of the loan is not carefully scrutinized and the evil feature of overdues is very common.

(4) *Defective Audit.* It is of the greatest importance to have an efficient and thorough audit in order to prevent bad management and embezzlement and to inspire confidence in the public. The existing arrangements vary from state to state and are mostly unsatisfactory. Audit, supervision and inspection of societies, which are closely allied functions, are now vested in two and sometimes in three different agencies, resulting in much overlapping of work and waste of efforts and money.

(5) *Window-dressing.* The real work is generally neglected and people use their genius for window-dressing. This is probably not so in the Punjab where the movement has been a comparative success.

(6) *High Rates of Interest.* The rates of interest are still high in many states. To a certain extent this is inevitable, for two or three intermediate agencies, each requiring profits, interpose between the ultimate borrower and the original lender or depositor; the primary society, the central bank and the state bank, each adds something to the rate of interest payable to the depositor. Under ideal conditions, societies are expected to attract locally all the capital needed for the requirements of the members.

(7) *Inelasticity, Dilatoriness and Inadequacy.* One of the greatest weaknesses of the movement consists in its inelasticity, dilatoriness and inadequacy. Members fail to get as much money as they want and whenever they feel its necessity. Unnecessary delay is sometimes involved in the process. One result is that members have to go frequently to the money-lender. Indeed a habit has grown up among societies of taking up as much as they can from the Central Banks once a year and giving out the money to their members in a lump sum. The money received in a lump sum is spent as soon as it is received, and when other needs arise, money is again borrowed at exorbitant rates from money-lenders.

(8) *Lack of Consolidation.* Efforts directed towards the rectification and consolidation of existing societies have so far borne no fruits.

(9) *Predominance of Government Control.* In its inception, initiation and control, the movement largely remains a Government movement. The share of non-officials in it is very insignificant. In order to be a success, it must be a movement of the people, for the people, by the people.

(10) *Handicaps of Thriftlessness and Illiteracy.* Co-operation has not been able to inculcate in the people the habit of thrift; so that the borrowed money is returned with difficulty and slow-

ness and the need for taking loans arises only too rapidly. The illiteracy of the masses is a great obstacle in the way of success of the movement.

§ 4. CONSUMERS' CO-OPERATION

Among urban co-operative societies, consumers' co-operation has made great progress and shown good results. We will, therefore, study this subject in some detail below.

Objects of Consumers' Co-operation

Everybody is a purchaser and buys goods of his requirements from shop-keepers and not directly from producers. Usually producers sell the goods to wholesale merchants; the latter to retail merchants; who sell them to consumers. Wholesale and retail merchants are middlemen and increase the price of goods. If a packet of cigarettes is sold by the producer to the wholesaler for 2 as, the latter will sell it to the retailer for 2 as. 3 ps. who may ultimately dispose it off to the consumer for 2 as. 6 ps. or more. If the consumer were to purchase this packet of cigarettes from the producer himself, he could have got it for 2 as. only and would have saved 6 pies. It is to eliminate middlemen and to save the profit going to their pockets that consumers' co-operative societies are opened. Another reason for opening societies is to guarantee the quality of goods. Even when full price is paid to a shop-keeper, he passes on adulterated or poor quality goods to us. But a consumers' co-operative society ensures that the quality of the goods is genuine. *It is to (a) eliminate middlemen and (b) to ensure the genuineness of the quality of the goods that consumers' co-operative societies are set up.*

Principles of Consumers' Co-operation

Consumers' Co-operative Store, or Distributive Society as it is sometimes called, is an association of consumers for the sale of goods to the consumers at cheap rates and of genuine quality. Consumers of a particular locality or area combine to form a co-operative store by purchasing its shares, the profits of the store being divisible among the members in proportion to their purchases. For instance, if Yusuf purchases goods worth Rs. 1,000 in a year while Rakesh purchases goods worth Rs. 500 only during that period, Yusuf will get twice as much profit or dividend as Rakesh. The price at which goods are sold is equal to the market price, the profits divisible among the members being the form taken by the reduction of price below the market level. In some cases, however, goods are sold at less than market price also; but the principle remains the same.

The chief principles on which a consumers' store is organized are the following. The liability of the members is limited. A

member may purchase any number of shares he likes but he can have only one vote. Each member is duty bound to purchase all the goods sold by the store from the store only. The store sells the goods of genuine quality at market rates, no credit being allowed. One-fourth share of the annual profit is earmarked to a Reserve Fund, the rest being distributed among the members in proportion to their annual purchases. The members gather together in what is known as a General Meeting and shape the policy of the store, to give effect to which they elect a Managing Committee. The Managing Committee manages the store.

Consumers' Co-operation Abroad

Consumers' co-operation has been a very successful institution. It has been singularly successful in Great Britain where such stores run beyond millions. In Germany too their progress has been great. But they have made only half-hearted success in the United States of America, probably due to the high efficiency of retail stores in that country and the indifference of the receivers of high wages to a scheme which is meant to effect only small savings. In India, their progress has been very little.

The consumers' co-operative store had its origin in 1844 when the famous Rochdale Equitable Pioneers' Society was established at Rochdale (England) by twenty-eight weavers with a capital of £28. The beginning was modest for the store sold only butter, sugar, oats, wheat and candlesticks in the beginning. But slowly it spread its wings and began to sell almost all the commodities required by its members. The example was soon copied by consumers of other areas and several stores were started. Their success was inimical to the interests of the retail traders who put pressure on the wholesalers and producers and made them sell the goods to consumers' stores at increased prices. But this did not injure, rather it contributed to, the progress of the stores; for they retaliated by starting a wholesale society. The consumers' stores became members of the society; and the profits of the society became distributed among them in proportion to their purchases. The next step in the evolution of the stores was the formation of big factories for the production of the various goods like shoes and boots, cloth, paper, oil, furniture, etc. The stores thus eliminated both, the wholesalers and producers, and thus saved what used to go to them in the shape of profits.

Consumers' Co-operation in India

The consumers' co-operation, which has attained such notable success in England, has made only little progress in our country. A few co-operative stores of this nature are found today in Uttar Pradesh, Bombay, Madras, etc. Stores attached to colleges and hostels have been quite successful in showing encouraging results. But

on the whole the movement has made little progress. Several stores were started in this country during the Great War I when prices of commodities shot up like anything; but the return of normal prices in the post-War period saw their decline. During the period of the World War II, the number of Consumers' Co-operative Stores did not increase noticeably. After the attainment of freedom, several state governments gave considerable prominence to the consumers' co-operation, of which Uttar Pradesh is the best example. Hence the number of such stores is now increasing. The total number of Consumers' Stores in India is at present about 4,000.

The causes of the backwardness of consumers' co-operation in India are not far to seek. (1) So far as the rich people are concerned, they have no ambition to partake in such a scheme, for the little saving made by means of store does not attract them. (2) The middle class men are not attracted to it because the retail shops in town and cities give several facilities of credit and delivery at consumers' residence which are not provided by stores, while the difference in the retail and wholesale prices is narrow due to pressure of competition among the shop-keepers. (3) In England, the movement has found its roots in the poor class people, particularly labourers. In India, this class stands disorganized and indebted to the shop-keepers, which disable it from putting this scheme into execution. Besides, it is a well-known fact that the labour class in India is mobile, flowing as it does to the rural tracts during busy agricultural seasons; and has, therefore, hardly any interest in such a permanent scheme. (4) Again, consumers are generally unable to find sufficient capital, for the venture, they being specially handicapped by the absence of central banks; etc., from which the stores ordinarily obtain finances. (5) Finally, there is an absence of wholesale societies with the result that wholesalers are tempted or persuaded or pressed to charge high prices from the stores.

The most important consumers' co-operative store in India is the Madras Triplicane Store which was started in 1904 on a modest scale. The careful supervision and management and ruthless economy gave it the success it deserved and today it has 25 branches whose yearly sales come to about 12 lacs of rupees. Its paid-up capital is about one lac of rupees and its Reserve Fund $1\frac{1}{2}$ lacs.

QUESTIONS

1. Explain the meaning of co-operation. What are the fields of its application?
2. Describe the origin and the principles of the Schulze-Delitzsch forms of co-operative societies.
3. Trace the history of the co-operative movement in India.
4. Describe the structure and present position of the co-operative movement in this country.

5. Lay down the principles on which the co-operative primary societies have been organized.

6. What are the advantages of co-operation? How far have they been realised in this country?

7. Discuss in detail the defects in the co-operative movement in this country.

EXAMINATION QUESTIONS

U. P., Int. Arts

1. Discuss the main functions of co-operative credit societies. Will you advocate the introduction of multi-purpose co-operative societies in India? Give reasons (1951)

2. Write a note on Co-operative Production (1950)

3. What are the principles on which the agricultural co-operative credit societies are organized in India? Explain the utility of the principle of joint and several liability. (1946)

4. Write a note on co-operative credit societies. (1945)

5. What are the causes of rural indebtedness in India? How far have the co-operative credit societies succeeded in solving this problem?

(U. P., 1944, 1938)

6. What are the causes of rural indebtedness in India? How far have the co-operative credit societies succeeded in solving this problem?

(U. P., 1942)

U. P., Int. Agr.

7. Write an essay on the importance of co-operation as a solution for the problems of Indian agriculture. (1948)

Raj., Int. Arts.

8. What are the causes of rural indebtedness in our country? How far has the co-operative credit movement succeeded in solving this problem? (1949)

9. Analyse the causes of slow growth of co-operative credit movement in this country. Offer suggestions for improvement. (1948)

10. On what principles are rural co-operative credit societies founded in India? Explain the advantages of the principle of joint and several liability of the members. (1944)

11. How is interest determined by the interaction of demand and supply. Show how it is possible for co-operative credit societies to advance loans to agricultural classes at much lower rates of interest than a village moneylender. (1943)

12. Why are rural co-operative credit societies in India based on unlimited liability? What have been advantages of such societies? (1941)

13. What is a co-operative store? Discuss its advantages. (1940)

Raj., Int. Com.

14. Write a note on 'Co-operative Stores'. (1949)

Banaras, Int. Arts.

15. What is meant by co-operative production? What are its chief advantages? Why has this branch of co-operative activity made a very slow progress in India? (1947)

Banaras, Int. Com.

16. Write a note on consumers' co-operation. (1947)

Sagar Int. Arts

17. What are the chief aims of rural co-operative credit? Briefly describe the organisation in C. P. and Berar. (1948)

Sagar, Int. Com.

18. Write a note on co-operative credit societies. (1949)

19. Describe the organisation of rural co-operation in C. P. and Berar. What are its benefits to the Indian agriculture ? (1948)

Nagpur, Int. Arts.

20. How would you organise co-operative credit society in a village ? Under what conditions would it work successfully. (1949)

21. What do you understand by a co-operative society ? Give the forms of rural co-operative movement in C. P. and Berar. (1947)

22. Write a short note on co-operation. (1945)

Nagpur, Int. Com.

23. What do you understand by a co-operative society ? Give the forms of the rural co-operative movement in C. P. and Berar. (1947)

Panjab, Inter.

24. What benefits are members likely to derive from a Consumers' Co-operative Supply Society ? How far is a College Hostel Mess (Kitchen) a society of this kind ? (1951)

25. Describe briefly the services rendered by wholesale and retail merchants in modern economy. What are advantages, if any, of having co-operative supply stores ? (1949)

26. What do you know about a Co-operative Store ? What are the advantages that accrue to its members ? Illustrate your answer from the working of any store that you know. (1948)

Delhi, Higher Secondary

27. Write a short note on Co-operative Associations. (1950)

28. Point out the defects in the Co-operative Movement in India. (1950)

CHAPTER 56

TRANSPORT

Good roads, canals and navigable rivers—by diminishing the cost of carriage, are the greatest of all improvements.—*Adam Smith.*

§ 1. INTRODUCTORY

Our present-day society is very fundamentally dependent upon the means of transport which are aptly likened to the veins and arteries of the human body just as the telegraph and telephone systems are likened to the nerves. Modern means of transport represent the great victory that Man has gained over Nature by annihilating distance and making the world shorter than before. The importance of the means of transport from social, political and cultural viewpoints cannot be too much emphasized. Their importance in economic sphere is, of course, supreme. The modern society of large-scale production and world-wide trade is basically hinged on an efficient system of transport. Raw materials are brought by railways, ships, etc., from various places of their origin and are unloaded in factories. The latter convert them into finished products and the means of transport take them away to national and international markets where they are sold to millions of consumers. This is true of every modern industry; and has been made an accomplished fact by cheap, easy and efficient means of transport.

Means of Transport

The means of transport have changed their character through the march of centuries. Originally, human beings were the only means of transport, of which the modern coolie is the typical example. Later on, the utility of animals as beasts of burden was found out and they became important means of transport. Still later, water transport came into prominence: first the rivers were tried, because they were only moderately risky, and the experience gained there encouraged people to venture upon the ocean. It was followed by road transport when the improvement of roads and construction of conveyances became the fashion of the day. Next, steam was found out and railways were invented. Motor transport next made its appearance and occupies a very prominent place in the modern economic life. The latest addition to the means of transport is, of course, the air transport.

Development of Transport in India and its Effects

The economic effects of the development of transport 'can best be illustrated with reference to India. The means of transport in ancient India were quite efficient and upto-date. Later on, during the turbulent centuries separating the ancient and modern times, they fast deteriorated. Further improvements and extensions did not keep pace with the growing requirements and before the middle of the last century, they were in a very poor state. Roads were few, troublesome and unsafe ; navigable canals were absent ; and railways were yet to come. Strenuous efforts were thereafter made to improve the matters ; and today we possess a fine transport system, though it still falls short of our needs.

The development of the means of transport has in recent times brought about fundamental changes in the economy of our country. (1) Before their advent, our *industries* were organized on small scale and were non-mechanised. But cheap, easy and quick transport enabled us to import machinery, chemicals and technicians from foreign countries and to establish modern large-scale and mechanised factories. The facilities offered by means of transport in taking goods from factories to the doors of the distributors and consumers all over the country, also helped the growth of modern industrialism. The growth of modern industries was accompanied with the unfortunate decay of old cottage industries which, unable to withstand the competition of cheap factory goods, began to die away, (2) Again, the growth of our *trade and commerce* is largely due to this development. Trade and transport are inextricably linked up with each other and none can develop without the other. (3) But the most important effects are to be seen in the field of *agriculture*.

Effects on Agriculture. (a) The most important effect of the development of means of transport has been the *commercialisation of agriculture*. Formerly our agriculture was known as "*subsistence farming*" as the cultivators then aimed at raising only as much produce as was necessary for their own subsistence or consumption. When the means of transport opened up markets in which agricultural produce could be profitably sold, cultivators began to raise the produce with the object of selling it in the market. Agriculture was thus commercialised. (b) Formerly the market for agriculture produce, such as it was, was only *local*. In times of famines therefore, prices went sky-high ; means of transport were poor and inadequate and supply could not be rushed from prosperous areas. In times of good harvests, on the other hand, prices tumbled headlong because the surplus produce of the agriculturist could be sold only in the local market. This unsatisfactory feature of our agriculture has now vanished. In times of famines, foodstuffs are hurriedly

brought to the affected area by speedy trains and bullock-carts ; and in times of bumper crops, the surplus produce is taken away by them to the places of scarcity where fancy prices are obtained. (c) Quick means of transport have also enabled the rural population to *produce perishable goods* like vegetables, fruits, eggs and milk, etc., and to dispose them of in the markets before they begin to rot. (d) Means of transport have linked our far-flung and quiet villages with the busy towns and cities, and the latter with other parts of the world. Our villages have become a limb of the world economy and are now *influenced by world conditions*. For instance, the Crimean War brightened many a home of jute growers and the American Civil War brought prosperity to cotton growers. (e) Intimacy with towns has enabled agriculturists to purchase useful articles of everyday need at cheap prices ; and to move to the industrial towns if they want employment. (f) Finally, means of transport have had an *educative influence* upon our cultivators. Their horizon of knowledge is widening and their religious fanaticism and provincialism, caste restrictions and conservatism, are being softened down.

§ 2. RAILWAY TRANSPORT IN INDIA

Short History

The railway is the most important means of transport in India. The construction of Indian railways on a serious scale dates from Lord Dalhousie's famous minute on the subject in 1853. The early railways were constructed by private companies under a *Guarantee System* whereby the Government guaranteed a return of 5 per cent per annum on the invested capital. The railway companies had no incentive to work efficiently and economically under this system ; nor did they economise in capital expenditure obviously because a fair rate of return was assured to them in any case. The Government suffered heavy losses in consequence. The State, then, took up the construction of railways in its own hands in 1869. The new move was cut short by financial difficulties of the Government which had to entrust the task to private companies once again under the New Guarantee System in 1879. In 1900 railways showed profits for the first time. Since then a vigorous policy of railway extension was launched till the World War I broke out. After this war, the Government appointed the Acworth Committee to consider the railway problem. In pursuance of its recommendations, substantial improvements were effected in railway transport.

The Present Position

Under the New Guarantee System, the Government had reserved the right to purchase the railways on certain specified terms, which they exercised later. Today all the railway lines are owned and

managed by the State. India now possesses about 34,000 route miles¹ of railways. The total route mileage appears to be very small for a country of such continental dimensions as ours. We have less than 2½ miles of railway line for every 1,000 square miles of area, which is very low as compared to other countries of the world. Railways have not yet penetrated into the rural areas which still lie unconnected with ports or big towns. The recent development of mechanical road transport has, however, reduced the necessity of railway extension to some extent.

Re-grouping of Railways

Before the partition of the country, there were 9 principal railway lines in India. Because of Partition, two railway lines were divided between India and Pakistan. These were Bengal Assam Railway and North Western Railway. The part of these railway lines that remained in India began to be called Assam Railway and East Punjab Railway respectively. So, even after the Partition, the country had nine principal railway lines, named below : (i) East Indian Railway, (ii) Great Indian Peninsula Railway, (iii) Bombay Baroda & Central India Railway, (iv) Bengal Nagpur Railway, (v) Madras & South Marhatta Railway, (vi) South India Railway, (vii) Bengal and North Western Railway, (viii) Assam Railway, and (ix) East Punjab Railway.

Recently there has been a re-grouping of railway lines. The merger of the former Indian States into the Indian Union brought about a merger of the railway lines formerly belonging to these States into the railway system of India. The whole railway system has, therefore, been re-grouped on a more rational basis as below :

1. *The Northern Railway.* This now comprises (a) the entire East Punjab Railway, (b) the Oudh and Rohilkhand section of the East India Railway, (c) the Jodhpur and Bikaner Railways, and (d) Delhi-Fazilka section of the B. B. & C. I. R. Its total mileage is 5,259 miles.
2. *The North Eastern Railway.* It now comprises (a) entire Oudh Tirhut and Assam Railways, (b) Fatchgarh traffic district of the B. B. & C. I. R., and (c) certain sections of the E. I. R. Its total mileage comes to 5,557 miles.
3. *The Eastern Railway.* It now comprises of (i) the entire B. N.R. and (ii) the remaining portions of E. I. R. Its total mileage comes to 5,605 miles.
4. *The Central Railway.* It comprises (i) the Great Indian Peninsula Railway, (ii) the Nizam's State Railway, (iii)

¹ The actual railway mileage before Partition was 44,000 miles ; but 10,000 miles were handed over to Pakistan, so that now India possesses only 34,000 railway miles.

- the Scindia Railway, and (iv) the Dholpur Railway. This railway will cover an area of 210,000 sq. miles and serve a population of 4.4 crores.
5. *The Western Railway.* It now comprises (i) major part of the B. B. & C. I. R., (ii) Saurashtra Railways, (iii) Rajasthan Railways, and (iv) Jaipur Railways. It covers an area of 1,50,000 sq. miles, serving a population of 3.2 crores.
 6. *The Southern Railway.*

Advantages of Railways

Railways have brought about remarkable changes in all spheres of our life—social, political and economic. The chief advantages they have bestowed upon the country are the following :

(1) *Social Effects.* Railways have been so many links joining the once isolated villages with busy towns. They have consolidated the entire India into one compact whole in which the exchange of ideals and social intercourse are easy and frequent. By affording cheap and easy means of travel, they have encouraged the travelling habit of the people. A great benefit has thus accrued to religious pilgrims in particular. Travelling by railways is also safe : it is difficult to rob a train full of hundreds of passengers as against an isolated bullock-cart or palanquin. Indeed, railways played an important part in putting an end to *thuggery* once prevalent in India. Railways also render invaluable service in executing publicity campaigns for sanitary improvements, for the popularisation of improved methods of agriculture, etc. Finally, by conferring upon the country a number of substantial advantages of economic character, they contribute to the richness of society.

(2) *Political Advantages.* The political advantages of railways are also great. They have put an end to internal dissensions, uprisings and wars, and have maintained peace within the country. Under their benign influence, India has emerged as one solid and unified nation with a strong Central Government. They afford protection against external aggression since military forces can be despatched from one part of the country to the other, according to military requirements with remarkable speed. Railways have also meant the active participation of the State in economic life of the country and have thus negated the vain cult of *laissez faire* or non-intervention. Finally, they have opened up new ways and means of increasing the financial resources of the State whose functions are daily increasing. Since the railways are State-owned, their profits go to the State coffers. By increasing the wealth of the people, they add to their tax-paying capacity ; while they provide great facilities in the collection of land taxes, customs, etc.

(3) *Economic Advantages.* The economic advantages of railways are even more fundamental and far-reaching than their social and political advantages. Railways have benefited agriculture, forestry, industries and trade, while their influence on labour and capital has been very salutary.

(a) *Agriculture.* What we have written about the advantages of the development of means of transport and communication to agriculture apply here in *toto* . In brief, railways have (i) commercialised agriculture, resulting in the localisation and specialization of crops, (ii) extended markets, (iii) encouraged the production of perishable goods, (iv) connected our agricultural economy with the world economy, (v) improved the economic status of agriculturists, and (vi) educated our cultivators in diverse ways. We may emphasise that the help rendered by them in famine relief has been very valuable, indeed. They have changed the very meaning of the word '*famine*'; famine formerly meant a *lack of food-stuffs*; but now it simply means *lack of employment*.

(b) *Forestry.* Railways have been very beneficial to forestry. Their construction creates a huge demand for sleepers, which encourages timber-growing. Besides they also help in the exploitation of the forests and in the extraction of their major and minor produces.

(c) *Industries.* Railways have established modern industrialism. They have facilitated the import of machinery, chemicals and skill and the transport of coal and raw materials. The distribution of the enormous quantities of finished products all over the country has again been made possible by them. Railways have also stimulated engineering industries. They have also facilitated the exploitation of mineral wealth so indispensable for industrialization.

But they struck a fatal blow on indigenous cottage industries. They made possible the cheap, easy and quick transport of factory-made goods which sounded the death-knell of cottage industries.

(d) *Trade.* Railways have also stimulated trade and commerce. The economic history of the country shows that in the days of yore, our internal trade was meagre. But since the introduction of railways, it has increased tremendously because the cost and inconveniences of transporting goods have now been greatly reduced. They have also increased our foreign trade by assembling at the ports exportable commodities and by distributing throughout the country the imported articles.

(e) *Labour.* Railways have increased the mobility of labour and have brought about an even distribution of population. Workers have begun to shift from villages where the pressure of population on land is heavy to the areas of virgin soil or to industrial towns where labour is scarce. Railways have created two main labour

classes : railway workers' class, consisting of engine-drivers, guards, station masters, coolies, etc., and factory workers' class which has grown up with the growth of factories made possible by railways.

(f) Capital. They have brought to the country much foreign capital which has not been barren of economic advantages and which has encouraged the risk-taking instinct of our people.

Disadvantages of Railways

Railways are not an unmixed good and have certain demerits, though they are often over-emphasized. It is said that railways have brought about a *decay of cottage industries* and have thus withdrawn from cultivators an important source of subsidiary income. This, however, is true only to a certain extent. The defeat of handicrafts has been a definite stage in the economic development of each and every country ; the absence of railways might have delayed the moment of defeat but could not have eliminated it. In so far as the cottage industries which can hold their own against factory industries are concerned, they are now being revived and railways are contributing to their revival. Again, railways are accused of bringing about *one-sided development of the country* : by charging low freight on raw materials destined to ports and on imported manufactures intended for the interior markets, they have made the economy of the country disproportionately agricultural. This allegation is true ; but this is the defect, not of railways, but of railway rates policy. Again, it is said that though railways have made the famine relief easy, they have at the same time increased the volume of the task by increasing the pressure of population on land through the destruction of cottage industries. This point has already been discussed above and needs no repetition. Railway construction, it is also asserted by the critics, led to indiscriminate cutting of forests, which had to be checked later on. Finally, they are held responsible for importing much foreign capital into the country, which brought with it many economic and political disabilities.

§ 3. ROAD TRANSPORT

Short History

India has been in possession of efficient roads from times immemorial. Excavations at Mohanjodaro and Harappa bear eloquent testimony to the excellence of the roads of ancient India. With the advent of the British Rule, roads acquired a new strategic significance for the movement of troops. A vigorous road policy was launched by Lord Dalhousie who rendered similar service to railways also. The extensive construction of railways led to a certain neglect of roads, specially when there was competition between them. With the popularity of the mechanical road transport in recent years, roads have again come into prominence.

Present Position

Before the partition of the country, the total length of roads in India was 3,00,000 miles. Of these there were 1,00,000 miles of metalled roads, and the rest unmetalled roads. Of these roads, those of a total length of 50,000 miles now belong to Pakistan, with the result that the total length of roads in India at present is 2,50,000 miles. The frame-work, with which the important subsidiary roads are linked, is constituted by four great trunk roads which stretch diagonally across the country. The most important of them is the famous Grand Trunk Road in Northern India joining Amritsar to Calcutta. The other three connect Calcutta with Madras, Madras with Bombay and Bombay with Delhi. As regards subsidiary roads, the best and the most numerous exist in Southern India. Then there are unmetalled or '*kutchha*' roads some of which provide good going for motor traffic during the dry weather. The distribution of roads, and of motor vehicles is shown in the following table :—

State	Road Mileage	No. of Motor Vehicles
1. Madras	38,000	22,000
2. U. P.	32,000	20,000
3. Bihar	30,000	10,000
4. Bombay	18,000	30,000
5. Others	1,32,000	48,000
Total	2,50,000	1,30,000

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of motor transport, and suggest ways and means of financing it. In accordance with its recommendations, the import and excise duties on motor spirit were raised from 4 to 6 annas per gallon in 1929, additional duty being meant to be spent on road development. This decision has since been amended twice, the resolution at present in force having been passed by the Assembly in 1937. It was passed that the special tax on petrol introduced in 1929 shall continue to be levied for road development, the proceeds of which, after retaining a reserve of 15 per cent for administration, research and special grants-in-aid, shall be allocated for expenditure in the different states, in ratio of petrol consumption in the various areas. These sums may be spent on the construction, reconstruction, or improvements of roads and bridges.

Necessity of Road Construction

We need more and improved roads for meeting the requirements of our continental country. Agriculturists cannot send goods to *mandis* and towns easily and cheaply so as to be able to sell their produce at high prices ruling there. Our forest wealth cannot be fully exploited due to the same cause. Our industrial development is also handicapped due to the insufficiency of good roads which are essential for the assembly of raw materials and distribution of finished products. They will also be valuable in the decentralization of industries and in developing cottage industries. Finally, if road transport increases and improves, our internal trade is likely to improve considerably. For the all-round economic development of the country, therefore, the construction and development of roads is absolutely essential.

Rail-Road Competition

With the increase of motor traffic, the competition between the road transport and railway transport has become acute. Motor transport is a product of the present century as railway transport was that of the last. And this problem, which was characterised by Lord Willingdon as "one of the growing pains of civilization," is to be found in almost all the countries of the world.

Railways and motors have, in fact, their own exclusive spheres of cheap operation. In the case of railways, huge capital has to be sunk in providing locomotives, wagons, stations, signals, sheds, etc. The working cost is also enormous. No such outlay is necessary in the case of road transport. Railways, unlike motors, also face the problem of carrying half-empty wagons and of keeping rolling stock idle. Again, railways have to pay for the cost and upkeep of their permanent way; but the cost of maintaining roads is mostly borne by general tax-payers. It appears, therefore, that road transport is cheaper than railway transport. This, of course, is correct so far as short distance and light traffic is concerned. In

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Defects

Indian road system was altogether inadequate to the requirements of the country before the advent of motor traffic, which has brought the inadequacy in still bolder relief. The deficiency of roads is specially felt in rural areas many of which lie isolated—unconnected with railway stations or towns. Even existing roads are not satisfactory. They lack co-ordination and continuity in programme. Not unoften, the absence of bridges and culverts militates against their usefulness. In recent years, the development on motor traffic has considerably deteriorated them.

Government Action

The increasing realization of these defects led the Government to appoint the Road Development (Jayakar) Committee in 1927, whose functions were to examine the question of the development of road communications in view of the increasing use

of motor transport, and suggest ways and means of financing it. In accordance with its recommendations, the import and excise duties on motor spirit were raised from 4 to 6 annas per gallon in 1929, additional duty being meant to be spent on road development. This decision has since been amended twice, the resolution at present in force having been passed by the Assembly in 1937. It was passed that the special tax on petrol introduced in 1929 shall continue to be levied for road development, the proceeds of which, after retaining a reserve of 15 per cent for administration, research and special grants-in-aid, shall be allocated for expenditure in the different states, in ratio of petrol consumption in the various areas. These sums may be spent on the construction, reconstruction, or improvements of roads and bridges.

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the case of long distance and bulky traffic, railway transport is the cheaper of the two. For railways operate under the law of increasing returns or diminishing cost—the larger the scale of operation, the lower the cost per unit. Obviously, then, long distance and bulky traffic should be allocated to the railways and short distances and light traffic, to the motors. There is no scope for competition here.

There is, however, a certain overlapping sphere of operation where there is competition between these two forms of transport. This is so in the neighbourhood of large cities and suburbs and where motor services run parallel to short-circuit rail roads. Railways are feeling the pressure of this competition and efforts are being made to find out a solution.

§ 4. WATER TRANSPORT

River Transport

Water transport consists of inland waterways and ocean transport. India is a land of many rivers but still the inland water transport is not much developed here because of several unfavourable geographical factors. Northern India possesses 26,000 miles of navigable waterways approximately. The Ganges is navigable up to Kanpur. The southern rivers are swift and possess rocky beds; therefore, they are not important for navigation. Some of the Indian rivers become dry during the summer, which is injurious to their navigation. Again, there are difficulties in transporting goods from the banks of the rivers, to the road or railway stations, as the intervening land is usually sandy and unfit for vehicles. The shifting nature of Indian rivers makes the construction of harbours out of the question. However, the competition of railways has struck a fatal blow to the river transport. It was the opinion of the Industrial Commission that where railways and waterways compete with each other, the Government should carry on the administration of both of them side by side.

Marine Transport

The foreign trade of India is mostly overseas and is carried on by foreign shipping concerns. India does not possess a mercantile marine of her own. It is sometimes said that the nature of Indian coasts and distance of sea from the interior have failed to make up a sea-faring nation; the only ports of any consequence that we possess are Bombay, Madras, Vizagapattam and Calcutta. But in olden days India was an important sea-faring nation, and can certainly regain that importance once again if opportunities for development are made available to her people. The absence of Indian element in marine transport is widely deplored in the country

and it is increasingly believed that "a country stud like a pendant amongst the vast continents of Old World, with a coastline of over 4 000 miles and with productiveness of numerous articles of great use unsurpassed elsewhere, is by nature meant to be a sea-faring country. Her ports are adequate in size and number to meet the various requirements of her products."⁵

Shipping Tonnage. The Scindia Navigation Company, formed in 1919, was perhaps the first Indian shipping company to be launched, and it did its best to continue in the shipping business in spite of unfair competition of the British shipping companies. In 1923, it had to agree not to run ships in the overseas trade and it had to limit the tonnage which it could ply in the coastal trade. It was as late as 1947 that the first regular shipping line was started between India and America; and in 1948 a regular service was started between India and the United Kingdom. At present, there are 19 Indian shipping companies. Their total tonnage was 3 lacs in March 1948. With the establishment of a National Government, things have, however, changed; and the Indian shipping industry has a bright future now.

Ship-building Yard. The Scindias had a ship-building yard at Vizagapattam during the war period, which they wanted to close down after the war. But the Government wished that the building work should be continued. A ship at the Scindia's yard costs Rs. 64 lacs as compared to Rs. 42 lacs at which it can be obtained from the United Kingdom. The Government placed an order for three ships and gave a subsidy to the Yard @ Rs. 22 lacs per ship. These ships have been constructed; and another similar order was placed with the Scindias in August 1951. It is, however, hoped that the cost of ship-building will in course of time come down.

Ports. The loss of Karachi Port was a great drawback to India. Vizagapattam Port has been considerably improved; and a new Kanala Port is now being developed. It would be a modern port and will effectively compensate the loss of Karachi.

§ 5. AIR TRANSPORT

Air transport has also made considerable progress in India in recent times. Air transport can trace back its history to 1929 when English, French and Dutch air services began to pass through India. The first Indian company which entered into this sphere was the Tata's. In 1932, it began its active career with an air service between Madras and Karachi. Other air companies followed suit; and at present, the following are the important air companies in India:—

55. S. N. Kaji, *Economics of Shipping*, pp. 365-66,

TRADE OF INDIA

§ 1. INTRODUCTORY

The trade of a country can be divided into two classes ; (i) Inland Trade, which takes place among the traders, belonging to the same country, and (ii) Foreign Trade, which the traders of a country transact with foreigners living in foreign countries. The inland trade of every country is several times larger than its foreign trade.

Advantage from Foreign Trade

Some persons are of the opinion that we should try to expand our inland trade and our foreign trade should be reduced to the very minimum. Such persons are believers in self-sufficiency, and want that our country may never have to depend upon a foreign country for any article it needs. But this point of view is not correct. (i) If a single individual decides to satisfy all his personal wants directly by his own efforts, he will be able to satisfy only a few wants ; similarly a country working on the principle of self-sufficiency will not be able to make much economic progress. We can take full advantage of international division of labour only by having a large foreign trade. (ii) Besides this, foreign trade is also a form of exchange ; and we have seen in Chapter 44 that both the parties to an exchange benefit by the transaction. (iii) In the same Chapter we had explained that foreign trade helps a country to give away its superfluous products in exchange for foreign products required by her. (iv) Foreign trade increases the extent of our trade and this increases the scale of our production. Large scale results in large economies—external and internal—of production, and according to the law of increasing returns, this diminishes cost per unit. (v) By means of foreign trade, a country can obtain even such things which it does not produce, e.g., plant to produce automobiles, chemical manures, etc. (vi) Foreign trade leads to international peace and tranquillity. All the above-mentioned advantages can be illustrated by taking examples from India.

A Case of Harmful Foreign Trade. If, however, a country happens to be a colony or a dependency of some other ruling nation, the ruling nation can give to the foreign trade of the dependent nation a shape harmful to the subject nation. For instance, during the period of the British Rule in India, the policy

adopted for the foreign trade of the country was to encourage the export of raw materials to England and the import of manufactured goods from England—a policy which resulted in the enrichment of Britishers and impoverishment of Indians. Our industries could not grow up; and we had to purchase British manufactures at high cost. The chief cause of the growth of Imperialism in the world history was the possibility that the foreign trade of the subject nation could be given a shape favourable to the ruling nation, though it might be harmful to the subject nation. This then is a case where the foreign trade of a country can be against her interests. But now Imperialism has been largely liquidated or is fast disappearing; and this danger is losing importance.

Balance of Trade

The foreign trade of a country can be divided into (a) imports, and (b) exports. At the end of a year, every country calculates the value of her total imports during the year, as well as the value of her total exports during the same period. If imports exceed exports, the country will have an *unfavourable balance of trade*; and she will have to export gold or borrow from abroad to discharge this additional liability. On the other hand, if exports are more than imports, the country will have a *favourable balance of trade*; and she will then get actual gold to the extent of this excess or other countries will become her debtor to this extent.

It is sometimes thought that if the balance of trade is against a country, it is a sign of her economic degradation. This view is not always correct. There can be cases when an unfavourable balance of trade coincides with a foreign trade policy wholly beneficial to a nation. (i) A country may have unfavourable balance of trade; but she may be exporting "invisible items" like banking, transport and insurance services to foreign countries; and such invisible exports may fully take into account the unfavourable balance of trade. (ii) A country may have unfavourable balance with some other country; but this may be compensated by a favourable balance that she may have with a third country. We should look to the complete picture rather than to the trade relations between a pair of countries only. (iii) If a country has borrowed money, say, for capital development, her imports are bound to exceed her exports; and this might be fully in her economic interests. (iv) If a country is a creditor country and her debtor countries are repaying her loans, it is possible that the balance of trade is against the creditor country. But since such a condition merely reflects that an outstanding loan is now being redeemed, it must be in the interests of this country. It should be clear from this, that when we study the foreign trade of a country, we must not think that merely because she has an unfavourable balance of trade, her foreign trade policy is unsound. If we look

behind the veil of money, such a policy might be found to be fully in the country's economic interests.

§ 2. FOREIGN TRADE OF INDIA

Before the World War II, the foreign trade of our country aggregated to about Rs. 300 crores per annum. She used to import goods worth about Rs. 150 crores; and export goods to the tune of about Rs. 160 crores. The balance of trade was, thus, generally in our favour. Most of our exports were raw materials; just as most of our imports were manufactures. But during the World War II, many vital changes took place. In the first place, general price levels throughout the world went up. Before the World War II, the value of our total foreign trade was only about Rs. 300 crores; but now it increased to about Rs. 1,000 crores. In the second place, formerly British Commonwealth occupied the foremost position in our foreign trade, but recently her relative importance has declined and particularly U. S. A. has improved her position. Apart from these changes, which have been discussed in greater detail later in this Chapter, India was partitioned and a part of India, called Pakistan, was lost to the country. This also changed the shape of our foreign trade rather materially. The present position is that most of our exports are now manufactures; and our import of manufactures has gone below 50%. In the following table, we show the composition of our imports and exports during the year 1950 :—

NATURE OF FOREIGN TRADE OF INDIA IN 1950¹

	Imports (In Percentages)	Exports (In Percentages)
1. Manufactures	47	56
2. Raw Materials	35	21
3. Food and Beverages	18	23
	100	100

¹Nature of Foreign Trade of India in 1950 will be clear from the figures given below in crores of rupees :—

	Imports	Exports
1. Manufactures	232	285
2. Raw Materials	177	105
3. Food & Beverages	92	119
	501	509

Salient Features of Foreign Trade

Even after partition of the country ; our foreign trade aggregates to about Rs. 1,000 crores, taking imports and exports together. The following are the salient features of the foreign trade of India :—

(i) Manufactures occupy the first position both in the exports as well as in the imports. Approximately about 50% of our imports are manufactured goods ; and about 60% of our exports are of manufactured articles. Historically, it is a very significant development. In the opening decades of the 19th century, our industrial position was supreme and our exports consisted mostly of manufactured goods. But as a result of the subsequent growth of European industries and the economic policy of the Government of India, our industries languished and agriculture became the mainstay of our economy. The nature of foreign trade, therefore, completely changed : we began to import manufactured goods mostly and our exports of such goods fast declined. From this harmful situation, the World War I gave us only partial relief. Even before the World War II 75% of our total imports were manufactures, a figure which has now dwindled to even less than 50%. Similarly, before the World War II, our exports of manufactures were only 25%, a figure which has now gone up to about 60%. Hence the increasing importance of manufactures in our export trade and their declining importance in our import trade is perhaps the most notable feature of our foreign trade in the post-war period.

(ii) In the post-war period, we have begun to import raw materials in substantial quantities, which again is a noteworthy feature in the history of our foreign trade. Till 1938-39, we used to import only 15% of our total imports in the shape of raw materials ; but now this figure has jumped up to 35%. This is partly because of the increasing industrialization of India ; and partly because of the establishment of Pakistan. Pakistan has got valuable agricultural tracts ; and now we have to import raw materials like jute and cotton from Pakistan.

(iii) Formerly, India was rich in foodstuffs and beverages. We used to import in 1938-39 mostly rice and liquors ; and such imports were only 15% of our total imports. But after Partition, our situation in this respect has much deteriorated. We produce 10% less foodstuffs than our minimum requirement ; and this quantity has to be imported from abroad. Such imports are made either by private individuals or by Government. Latter imports are not included in the above figures.

(iv) The manufactures that we import from foreign countries are mostly such as help us in the industrialization of the country. Machinery, chemicals, oilmen's stores are the examples. Before the

World War II, most of our imports were of consumer goods. This is a very hopeful and significant development in our foreign trade in the post-war period.

(v) Usually we export more than what we import. In other words, the "balance of trade"² is, as a rule, in our favour. This balance is used by us in making payments for the "invisible" items of import, e. g., insurance premiums paid to foreign insurance companies, freight paid to foreign ships, pensions paid to foreigners, etc. If still a balance is left, it is imported in the shape of precious metals or balances with foreign banks.³

(vi) Our foreign trade is mostly in the hands of foreigners. Exporters and importers are generally foreigners. Shipping and insurance companies are mostly foreign. Exchange Banks are, again, mostly foreign. It is a matter of regret to us that while even small and unimportant countries like Netherlands and Sweden have their own shipping, insurance and banking companies, we are almost completely devoid of them.

(vii) Practically all the foreign trade of India passes by sea. The countries on our land frontier are generally poor and backward, selling little and buying little.

(viii) The sea-borne trade of India is concentrated in a few main ports, viz., Bombay, Calcutta, and Madras. About 6/7ths of the entire foreign trade flows directly to, or through, them.

(ix) United Kingdom occupies the first place in our export trade as well as in our import trade. The share of the United Kingdom in our total foreign trade is about 30%. U. S. A. comes after U. K., her share in our foreign trade aggregating to about 20%.

(x) Our foreign trade per head is much lower than that for U. S. A., England and other foreign countries. This is an index of our economic backwardness.

(xi) Formerly our exports were mostly of agricultural commodities. Hence they were dependent upon rains. When rains were suitable, our exports were large; but when rainfall was inadequate or there were floods, our exports used to decline. But now the relative importance of manufactures in our export trade has increased. Therefore, rains do not now have the same importance for our export trade as before.

² By "balance of trade" is meant the difference between the exports and imports. If exports exceed imports, the balance is favourable; in the reverse conditions, it is unfavourable.

³ In 1950 the balance of trade was in our favour. But in 1951, India had an adverse balance of Rs. 87 cr. Her imports during 1951 came to Rs. 850 cr. and our exports to Rs. 763 cr. See *Statesman*, Feb. 15, 1952.

(xii) Formerly, our imports were in the following order : cotton manufactures, machines, oils, grains and metals. But now the order is : machinery, grains, cotton, oil and metals. In other words, our imports of machinery, grains and cotton have increased relatively in importance ; and that of cotton manufactures has considerably declined.

(xiii) There are only three important items of export in our country, *viz.*, jute manufactures, cotton manufactures and tea. The other articles figure very insignificantly in our export trade. For our jute goods exports, we are basically dependent upon Pakistan which supplies us bulk of our raw jute. The importance of increasing exports has become a very important problem for us at the present moment.

Imports of Merchandise

The following table gives chief imports of India in order of their value :—

Imports into India, 1950

	Rs.	Crores
1. Raw Cotton	87	"
2. Machinery	86	"
3. Grain	68	"
4. Oils	59	"
5. Metals	42	"
6. Vehicles	21	"
7. Raw Jute	18	"
8. Chemicals and Medicines	16	"
9. Cutlery and Hardware	12	"
10. Dyes and Colours	11	"
11. Electrical Goods	11	"
12. Fruits and Vegetables	8	"

1. *Raw Cotton.* Before the World War II, we used to import little of raw cotton. But since the Partition of the country, large cotton-growing tracts have gone over to Pakistan ; and we have now to import raw cotton from Pakistan and other countries. We have a very flourishing cotton textile industry also which has created profitable foreign markets. Import of cotton forms the basis of this industry. Cotton occupied the first place in our import list in 1950. (Its position was, however, third in 1948-49, the total value of its imports being Rs. 64 crores).

2. *Machinery.* We import machinery of various types for our factories. India is advancing industrially ; and the basis of all industrial progress are machineries. It is, therefore, a good sign that in 1950 we imported machinery to the tune of Rs. 86 crores. In fact, India is not able to import machinery as much as she would like to do because of a world scarcity of capital goods.

3. *Grains.* Before the World War II, our imports of foodgrains was not much. We have now to import rice as well as wheat to feed our growing population. The value of these imports comes of about Rs. 68 crores per year. This figure, however, does not include the imports of foodgrains made by the Government. It is very necessary for us to increase the production of foodgrains in this country. The Government are making every effort to do so

4. *Oils.* We imported oils to the extent of Rs. 59 crores in 1950. It is a huge figure, seeing that our imports in 1948-49 were only worth Rs. 38 crores. This item includes petrol, kerosene oil, etc. Most of the supply is imported from Burma, Persia and U. S. A.

5. *Metals.* Metals are also important for our industrial progress. We imported metals worth Rs. 42 crores in 1950. This category includes iron and steel, manufactures of iron and steel, and other metals.

6. *Vehicles.* We imported motor vehicles to the extent of about Rs. 21 crores in 1950. The value of this item is decreasing regularly—the figure for 1948-49 was Rs 33 crores only. This is because the Government are trying to develop an automobile industry in the country itself. In this category are included, motor cars, lorries, vans and cycles. They are imported mostly from England and U. S. A.

7. *Raw Jute.* In 1950, we imported raw jute from Pakistan of the value of Rs. 18 crores. As already explained, most of the jute-growing regions now fall in Pakistan; and we have to import raw jute to feed our jute-manufacturing industry. The price of Pak jute is very high, which complicates the situation. If Pakistan becomes a steady and reliable source of raw material at reasonable prices, it will be in the interest of both the nations.

8. *Chemicals and Medicines.* Chemicals and medicines worth Rs. 16 crores were imported in 1950. We require chemicals for most of our industries as well as for manuring our soils. Medicines are also imported in large quantities from abroad.

9. *Cutlery and Hardware.* In 1950, imports of cutlery and hardware amounted to Rs. 12 crores, slightly less than previous years.

10. *Dyes and Colours.* In this category are included colouring materials and materials needed for tanning leather. The total imports in 1950 amounted to 11 crores.

11. *Other Things.* The imports of electrical goods in 1950 aggregated to 11 crores and of fruits and vegetables to Rs. 8 crores.

Exports of Merchandise

We give in the following table the chief exports of India in order of their value in 1950 :—

Exports from India 1950

	Rs. Crores
1. Jute Manufactures ...	117
2. Cotton Manufactures...	112
3. Tea ...	70
4. Hides & Leather ..	22
5. Spices ...	21
6. Seeds ...	18
7. Raw Cotton ...	18
8. Tobacco ...	13
9. Oils ...	13
10. Gums and Lac ...	12
11. Fruits & Vegetables ...	9
12. Mining Products ...	9

1. *Jute Manufactures.* Jute manufactures have the distinction of topping the list of our exports. In 1950, these exports amounted to Rs. 117 crores. These exports go to England, U. S. A., and Australia, etc. The maintenance of these exports is a difficult problem for India. On the one hand, many foreign countries have begun to find substitute for jute; and on the other, Pakistan is in no mood to supply raw jute in adequate quantities and at reasonable prices. A more reasonable attitude on the part of Pakistan in this matter will surely help both the countries.

2. *Cotton Manufactures.* Cotton textile industry in India has recently created for its products flourishing and profitable markets abroad. The consequence has been that the value of these exports has considerably increased and it was in 1950, Rs. 112 crores. The corresponding figure for 1948-49 was only Rs. 40 crores. It is a very important export of the country today and every effort must be made to retain and develop these trade contacts.

3. *Tea.* We exported tea to the tune of Rs. 70 crores in 1950. Our best customer for tea is England. United States of America and Canada also purchase small quantities from us. Tea is an important item of export for India; and has been so in the past also.

4. *Hides and Leather.* India exports some raw hides and skins as well as tanned leather. These exports amounted to Rs. 22 crores in 1950.

5. *Spices.* The exports of spices have recently assumed considerable importance. Formerly, they did not even find a place in the list of important exports. But in 1950, these exports amounted to Rs. 21 crores.

6. *Seeds.* India exported seeds worth Rs. 18 crores in 1950. The figure in 1948-49 was only Rs. 7 crores.

7. *Raw Cotton.* India exported cotton which is generally of short staple and fit for producing coarse cloth; and she also imports cotton of long staple for producing fine cloth in her own mills. Foreign countries purchase cotton from India for mixture. Raw cotton brought to the country Rs. 18 crores in 1950.

8. *Tobacco, etc.* In 1950, India exports tobacco worth Rs. 13 crores and oils also of about the same value. Besides she also exported gums and lacs which brought to the country Rs. 12 crores. Fruits and vegetables were exported for Rs. 9 crores; and mining products also for about the same amount.

Direction of India's Foreign Trade

Our foreign trade is mostly with the following four countries: United Kingdom, United States of America, Pakistan and Australia. Their relative importance in our total foreign trade is shown below:

1948-49

Country	Value of Trade (Rs. Crores)	Percentage of Total Value of Foreign Trade
1. United Kingdom	250	27%
2. United States of America	174	20%
3. Pakistan	66	7%
4. Australia	42	5%
Other Countries	408	41%
	940	100%

As is clear from the above table, U. K. occupies the first position in our foreign trade, claiming 27% share. The United States now come second, having 20% of our foreign trade with us. Pakistan's share is 7% and Australia's 5%. Formerly our foreign trade with U. S. A. was small. In 1938-39, her share in our foreign trade was only 7%. But during the period of the World War II, our trade relations with Germany and Japan, etc., were interrupted; and U. S. A. took their place.

During the British Period, most of our foreign trade was with the United Kingdom. In 1900, as high as 70% of our foreign trade was with the United Kingdom; but after the World War I, this figure

declined and Germany's share relatively increased. During the period of the World War II, as stated above, the share of U. S. A. in our foreign trade remarkably increased.

We give below another table which shows the share of different countries in our exports and imports separately in the year 1948-49:

IMPORTS		EXPORTS	
Country	(Rs. Crores)	Country	(Rs. Crores)
1. United Kingdom	152	1. United Kingdom	98
2. U. S. A.	104	2. U. S. A.	70
3. Egypt	32	3. Pakistan	66
4. Pakistan	22	4. Australia	42
5. Australia	14	5. Ceylon	12
Others	189	Others	175
	520		420

Invisible Imports and Exports

So far we have discussed the export and import of those items which are recorded in the custom returns or in other published statistics. They are known as "visible" imports and exports. There are, on the other hand, certain other items which are not so recorded, the so-called "invisible" items.

The *Invisible Imports* into India are mentioned below:

1. We have to pay interest on loans raised abroad; we thus import the use of the loans taken.

2. When we repay foreign loans, money goes out. We import back the securities. This is a debit item.

3. Remittances are made to Indian students studying abroad. This is a payment made for the education and other materials purchased or imported by India through the medium of its students.

4. Money is paid by Indian tourists for the services and amenities purchased by them abroad.

5. Payments have to be made for the services purchased from foreign insurance, shipping and banking concerns.

6. Foreigners carrying on business in India remit profits to their relations abroad. It is a payment made by India for the enterprise and business risk imported by her.

Our *Invisible Exports* are as below :

1. Loans raised abroad. When we raise a loan in a foreign country, we export securities.
2. Foreigners often make remittances to India for the support of schools, missions, etc. This is the payment which we get for exporting charity, as it were.
3. Tourists coming to visit India purchase many goods and services and pay therefor.
4. United Kingdom pays to us the loan taken from us in the form of Sterling Balances.

Balance of Trade and Balance of Accounts (or Payments)

The difference between the exports and imports of merchandise is called the Balance of Trade. If your (visible) exports exceed (visible) imports, the balance of trade is said to be favourable; and in the opposite case, the balance is said to be unfavourable. India, as a general rule, used to have a favourable balance of trade. But recently, this balance has in some years been against us.

A complete statement of our international indebtedness should include not only merchandise but also invisible items. The net balance of both visible and invisible items is named as Balance of Accounts or Balance of Payments. It is favourable or unfavourable according as the country has to receive or pay something in the final settlement of accounts. During the Great War of 1914-18, our balance of payment was favourable to the tune of Rs. 35 crores on an average. In 1936-37, it was favourable to the extent of about Rs. 21 crores. But recently, it has been unfavourable to us.

§ 2. INTERNAL TRADE

Internal Trade falls under two categories : Coastal Trade and Inland Trade.

Coastal Trade

The trade conducted along the coastline and meant to carry articles from one part of the country to another part of the same country is described as the *coastal trade*. The value of this trade is about Rs. 200 crores per annum.

Our coastline is very extensive and, though not quite as indented as that of, say, Britain, it is amply provided with harbours. But most of the old harbours have been allowed to be silted up. Again, our coastal trade warrants the existence of an Indian mercantile marine of fair size; but it is undeveloped. Efforts must be made to take full advantage of our capacity to develop the coastal trade. For

this purpose, our ports must be developed, our mercantile marine built up and railway and coastal traffic properly co-ordinated.

Inland Trade

By inland trade we mean inter-state trade carried over land. Our country has vast dimensions. Its population is tremendous. The variety of crops raised and goods produced is equally remarkable. Naturally our internal trade is bound to be much more important than our external trade. It is not ordinarily easy to compute the inland trade of country definitely. It is especially difficult in our case owing to the lack of adequate and efficient statistics. According to Professor K. T. Shah when the figure for the total foreign trade of India was Rs. 600 crores the figure of inland trade was computed by him at Rs. 1,500 to Rs. 1,600 crores. In other words, inland trade is only about three times of foreign trade. In England, the inland trade is about 20 times as great as the foreign trade. In the United States of America also, the internal trade is ten times of the external trade. This suggests the possibilities of development in our internal trade also, which cannot be neglected without grave prejudice to the permanent interests of the country.

QUESTIONS

1. What are the important features of our foreign trade ? Is balance of trade usually in our favour ?
2. Describe the important imports in order of their importance. Also show exports in the same manner.
3. Write explanatory notes on the direction of India's foreign trade and our invisible imports and exports.
4. Write a short note on the inland trade of India.

EXAMINATION QUESTIONS

U. P., Int. Arts

1. Point out the broad features of the exports and imports of India. What difficulties is India facing in importing food and machinery from abroad at the present time ? (1950)
2. What are the main features of exports and imports of India ? Why has India's external trade declined considerably during last few years ? (1948)
3. What are the special features of the foreign trade of India ? Why have imports declined during the present war ? (I. A. 1944)
4. Give an approximate idea of India's chief imports and exports. What important changes have you marked in them during recent years ? (I. A. 1940)

U. P., Int. Ag.

5. Write an essay on International Trade of India. (1950)

Sagar, Int. Arts

6. Clearly point out the characteristics of foreign trade of India. What are its advantages ? (1950)

7. What is meant by Balance of Trade ? What advantages are derived by a country from its foreign trade ? (1949)

8. Write note on Balance of Indebtedness. (1949 Supp.)

9. What is a Balance of Indebtedness ? Explain. Explain the economic advantages that a country can obtain from foreign trade. (1948)

Nagpur, Int. Arts

10. Explain the economic advantages of foreign trade. (1949)

11. Give the main characteristics of the foreign trade of India. Under what conditions would the development of the foreign trade not lead to the prosperity of the people of India ? (1947)

12. Write note on Balance of Indebtedness. (1947)

13. Explain the nature and importance of foreign trade of India. (1945)

Nagpur, Int. Com.

14. Give the main characteristics of the foreign trade of India. Under what conditions would the development of foreign trade not lead to the prosperity of the people of India ? (1947)

15. Write note on 'Balance of Indebtedness'. (1947)

16. What are the advantages that a country may derive from its foreign trade ? (1946)

Andhra, Int. Arts

17. Explain how International Trade arises ? What are the advantages of International Trade and its possible disadvantages ? (1950)

18. What is Balance of Trade ? Discuss the position in India in respect of Balance of Trade. (1950)

Travancore, Int.

19. Is it necessary to distinguish between internal trade and international trade in economic theory ? Give reasons for your answer. (1943)

Punjab, Inter.

20. (a) What were India's principal exports and imports in the pre-war period ? (b) Name the countries from which we got our chief imports, and the commodities that they supplied. (1949)

21. Distinguish between Balance of Trade and Balance of Payment. (1949)

22. What were the five principal exports of India in 1939 ? Are they likely to be the same in 1949 ? Give reasons. (1949)

23. Explain the Law of Comparative Costs in international trade. Is international trade always advantageous ? (1949)

24. What are the principal articles that entered into the export and import trade of India before the outbreak of the last war ? What do you know of the changes brought about by the war ? (1948)

Delhi, Higher Secondary

25. Analyse the main items of India's imports and exports. Which is more important for India—her internal trade or her foreign trade ? (1949)

Distribution

Book V

Chapter 58-65

CHAPTER 58

THE PROBLEM OF DISTRIBUTION

All wealth that is created in society finds its way to the final disposition of the individual through certain channels or sources of income. This process is called Distribution.—*Seligman*.

§ 1. INTRODUCTION

Distribution as a Department of Economics

Distribution of wealth is the fourth branch of Economics, which we shall now study. "What is understood by 'distribution' as a branch of Political Economy is the study of the principles on which the product of any complicated industrial process is distributed amongst those who have in any way contributed towards securing it."¹

In modern times production of wealth takes a co-operative form. Landlords, capitalists, labourers, organizers and entrepreneurs work together in the productive activity. Therefore the wealth which they jointly produce belongs to all of them. The problem which, then, arises is: How to distribute the wealth thus produced amongst the agents taking part in its production?

The answer seems to be simple. Each of them, it may be said, should be given a share of the joint product proportionate to his share in the effort. This principle of distribution is as fair and equitable as we would like it to be; but the difficulty is that it cannot be put into practice. We have no instrument or method by which we can measure the share of each producer in the productive effort and apportion the share in the wealth produced accordingly. As Person rightly observes, "How is it possible to separate the result of each man's efforts from that of the efforts of the group? One man has worked as an engineer, another as an invoice clerk; one

¹ Wicksteed, *The Commonsense of Political Economy*, p. 359.

has been engaged in some process of manufacture, another in conveying the finished goods to the warehouse. It would be difficult to determine what each of these has contributed to the final result."² But in spite of this difficulty, wealth is distributed among the agents of production. What are the principles, then, according to which the distribution of wealth actually takes place in the modern society? Are these principles just and fair? If not, what changes in the present method of the distribution of wealth are necessary? Such are the problems to which we address ourselves in the branch of Economics known as distribution. *Distribution may, therefore, be described as the descriptive, critical and constructive study of the principles according to which wealth is distributed amongst the different agents of production*³

Distribution as an Act

Distribution is also an economic act. In this sense it can be said to be *the method in which the wealth jointly produced by the agents of production is divided or distributed among them.*

Another Meaning of Distribution

The word *distribution* is used in another sense as well. It sometimes means the distribution of commodities amongst its purchasers—consumers who purchase for direct consumption and sellers who purchase for resale. The means of transport and commercial organizations like shops are called *distributive agencies*. In the present discussion, the word *distribution* is not used in this sense.⁴

Origin of the Problem of Distribution

In the primitive days, each man worked alone and with his own resources. A weaver, for instance, purchased yarn from the spinner, prepared the cloth himself or with the aid of the members of his family, and sold it in the market for whatever he could get in exchange. The money thus obtained belonged to him and to nobody

² Penson, *The Economics of Everyday Life*, Part I, pp. 137-38.

³ Distribution may be *Functional* or *Personal*. Under *Functional Distribution*, we discuss how each factor of production obtains a given money income in the form of rent, interest, wages and profits, which is exchanged for a share of the total consumption of goods. *Personal Distribution* discusses how individual persons obtain a given amount of wealth and income. Functional Distribution makes an attempt to explain how the price of a factor of production is determined. Personal Distribution explains inequalities in the distribution of wealth and income among individuals. Also see James, *An Outline of the Principles of Economics*, Ch. XIII.

⁴ In popular discourse, the term *distribution* often refers to the transference of commodities from place to place or from person to person; or in other words, the term refers to the operations of wholesale and retail trade. Logically, distribution in this sense is part of production. Distribution in the economic sense (here adopted) refers to the division of the wealth of a nation amongst the different classes—Nicholson, *Elements of Political Economy*, p. 95.

else; the question of distribution did not arise at all. By slow degrees, this stark individualism and economic independence sank into the yawning gulf of time, to be replaced by social life and economic interdependence. Productive efforts began to assume a co-operative character on an increasingly extensive scale; hundreds of men began to work together to produce each commodity. The wealth thus produced belonged to all of them and the question of distribution arose in the natural course of things.⁵

Before the Industrial Revolution, which occupied approximately one hundred years in England, from 1750 to 1850, the problem of distribution was not an important issue. It was the Industrial Revolution which accentuated the co-operative feature in productive process and increased the scale of production. The modern problem of distribution may, as such, be regarded as its legacy to the posterity.

Conflict in Distribution

Since there is no accurate measure of the just share of each agent of production, conflicts over distribution of wealth often arise. *Landlords* demand a very substantial share on the ground that they supply land or natural resources which fundamentally give rise to the finished products. *Capitalists* likewise assert that they provide machinery, implements and money without which production on any important scale is not possible: their contribution is very valuable and their share should be equally big. *Labourers* say that it is they who actually convert raw materials into finished products; if they cease to work, the entire productive machinery will come to a standstill. Still they get small wages just sufficient to keep themselves alive, other agents of production unjustly appropriating what really belongs to labourers. This theory is the inspiring motive of that great movement of Socialism which is spreading like wild fire in every country of the world. *Organizers* claim that the efficiency of entire production depends upon their bringing into effective co-operation the various factors of production. *Entrepreneurs*, not to lag behind, maintain that it is they who undertake the risk; if risk is not undertaken, production will be stinted to the irreducible minimum of necessities for existence. Because of these conflicting claims, the subject of distribution has become the most controversial and the most important branch of Economics. In passing it may be added that in the present-day organization of society labourers appear to be unjustly treated in the matter of distribution of wealth; their contribution is solid and substantial but their reward is very little.

§ 2. THE PROBLEM OF DISTRIBUTION

The problem of distribution resolves itself into three main issues :

⁵Penson gives a vivid description of the old order of things and the new order. See *Economics of Everyday Life*, Part I, page 138.

- (1) What exactly is there to be distributed ?
- (2) Who are entitled to a share ?
- (3) How distribution takes place and what determines the amount of each individual's share in income ?

1. What is to be Distributed ?

The question, what is to be distributed, appears to be very simple. A beginner may give a quick reply, "Evidently whatever is jointly produced by the agents of production, is to be distributed." This answer is, however, not quite correct. The whole wealth produced is not available for distribution. A fraction of it has to be used for making good the capital consumed in its production, whether the capital is *circulating*, which is consumed in a single operation, or *fixed*, which wears out gradually. Again, taxes have got to be paid out of it. The balance left after making these provisions is the amount available for distribution.

(a) *The Replacement of Circulating Capital.* During the productive process, the circulating capital is used up and has to be purchased again before further production is possible. In a furniture factory the stock of wood has to be purchased as soon as it is used up so that the manufacture of furniture may be continued. Similarly, in the case of a shoe factory, leather has to be replaced from time to time for the same reason. From the total wealth produced we must, therefore, set apart a certain sum for such replacement before we can arrive at the net amount available for distribution.

(b) *Depreciation and Replacement of Fixed Capital.* Fixed capital, like machinery, implements and ploughs, etc., lose their value with the passage of time, through wear and tear or otherwise. This gradual loss in value is known as *depreciation*. Fixed asset depreciates gradually till it becomes worthless and requires replacement. Its probable life can be estimated and during the period of its use, a certain sum is annually set aside in a Depreciation Fund such that when the asset becomes useless, sufficient money is available in the Depreciation Fund to purchase a new asset. For instance, if the price of a machinery is Rs. 1000 and its estimated life is 10 years, Rs. 100 can be added annually to the Depreciation Fund. After ten years, when the machinery becomes worthless, Rs. 1000 will become available for the purchase of another machinery. Provision is thus made out of the total wealth produced for the depreciation and replacement of fixed capital.

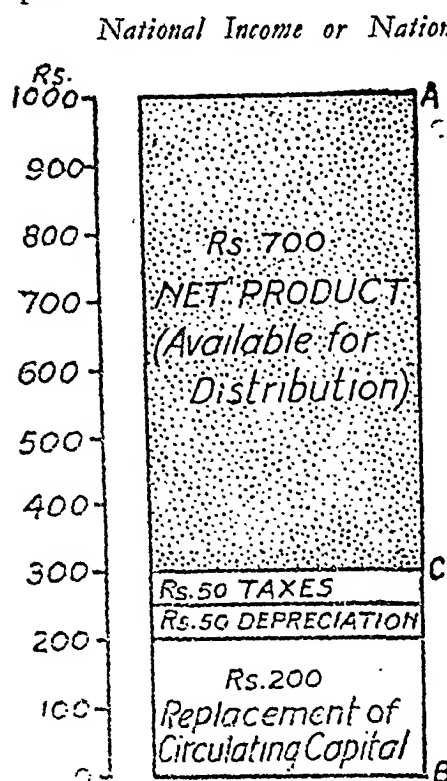
(c) *Taxes.* Citizens have to pay various State and Municipal taxes so that the Government and semi-Government bodies may discharge their functions efficiently. A part of wealth produced is thus taken away by the State in the shape of taxes.⁶

6. For a lucid explanation, see Moreland, *Introduction to Economics*, pp. 235-238.

The total wealth jointly produced by the co-operative agents of production is known as *Gross Product*. The wealth left after meeting the above three demands is known as the *Net Product*. It is the *Net Product* which is available for distribution.

Example. Suppose the total wealth produced by a shoe factory in the year 1952 is Rs. 1,000. It employs a circulating capital of Rs. 200 and provides annual depreciation on fixed asset of Rs. 50. It pays Rs. 50 as taxes each year. Find out its Gross Product and Net Product.

The answer is simple. Rs. 1,000 is the Gross product and if we deduct from this sum the replacement charges of circulating capital, depreciation on fixed capital and taxes ($\text{Rs. } 200 + \text{Rs. } 50 + \text{Rs. } 50 = \text{Rs. } 300$), we arrive at the Net Product, namely, ($\text{Rs. } 1,000 - \text{Rs. } 300 =$) Rs. 700. The following diagram (No. 63) illustrates the point.



Products of all the productive enterprises of the country during a given period, we arrive at the total Net Product available for distribution among its inhabitants. This total Net Product is called *National Income* or *National Dividend*. Marshall explains the concept of the National Dividend as follows: "The labour and capital of the country, acting on its natural resources, produce annually a certain *net* aggregate of commodities, material and immaterial, including services of all kinds. This is the true net annual income or revenue of the country; or the National Dividend. We may, of course, estimate it for the year or for any other period."

The word National Dividend is used in its arithmetical sense as the amount *to be* divided, and not in its commercial sense as the amount shared out. It must not be looked upon as a store accumulated by a

Fig. 63. Explaining the constituents of Gross Product.

7Marshall, *Principles of Economics* (1930 Ed.) p. 523. Pigou defines National Dividend as "that part of the objective income of the community, including, of course, income derived from abroad, which can be measured in money—Pigou. *Economics of Welfare*."

year's labour, sacrifice, etc., but rather as a stream continually flowing and being continually used up.⁸

2. Who are Entitled to a Share ?

The answer to this question is not difficult. Evidently those are entitled to a share of Net Product, who have contributed to the productive efforts. The factors of production are five, namely, Land, Capital, Labour, Organization and Enterprise. Those who supply them get a share.⁹ Landlords get *rent*; Capitalists, *interest*; Labourers, *wages*; Organizers, *salaries*; and Entrepreneurs, *profits*.

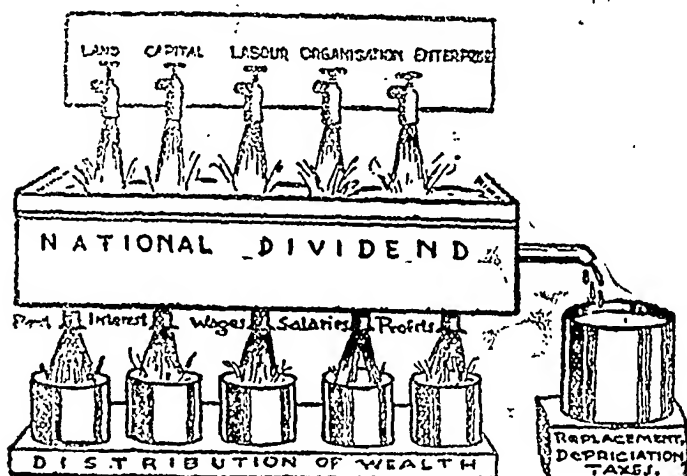


Fig. 64. Illustrating the origin and distribution of the National Dividend.

Organizer and Entrepreneur. Some writers make no distinction between the entrepreneur and organizer,¹⁰ obviously meaning thereby that both the functions of risk-taking and organization are in their opinion, rolled together in the same person. This view is not

⁸ Crew, *Economics for Commercial Students*, p. 85.

⁹ The following is a graphic description of the origin and distribution of the national dividend. We "may regard the contribution of each productive unit as being added to a vast reservoir of wealth into which flows continually the result of the efforts of all classes in the community. The reservoir represents the *national or social wealth* of the community which from day to day is being added to by its economically active citizens, and, on other hand, is being continually drained of some or of all its surplus by four great streams which in total represent the *national dividend or social income* and individually form the incomes at present respectively to the four great classes in society—land-owner, labourer, capitalist and entrepreneur." Thomas, *Elements of Economics*, p. 237.

¹⁰ Marshall and his followers belong to this class.

quite correct. In these days, the work of organization has become so technical that men with special aptitude, training and experience alone can do it satisfactorily—the qualities not necessarily possessed by a risk-taker. Sometimes the constitution of the business unit itself makes the division in these functions absolutely essential. In the case of a joint stock company, for instance, all the share-holders are entrepreneurs or risk-takers; but all of them do not take part in the management of the business. Paid organizers or managers are usually employed for the purpose. In such cases, then, organization is not supplied by the same persons who supply enterprise. These considerations show the advisability of treating organization and enterprise as two different factors of production.¹¹

It must not be supposed that an individual can supply one and only one factor of production. In fact, there are cases in which one person supplies several factors of production at the same time. Share-holders of a joint stock company are risk-takers; they are also capitalists as they supply capital. The dividend, which they receive on their shares, contains (1) interest on the capital supplied by them, and (2) profit for the risk that they undertake. Again, takes the case of a managing partner. He supplies capital, undertake, the risk and performs the managerial duties. He is an entrepreneur, a capitalist as well as an organizer.

3. Method of Distribution

The issue of the method of distribution concerns itself with the following: (a) How does the distribution actually take place? and (b) What determines the share of each agent of production?

(A) *How Does Distribution Take Place?* Older economists were at a loss to understand how distribution takes place. They gave very vague explanations of the phenomenon. Adam Smith, for instance, wrote that the total produce "is naturally distributed among the different ranks of people"; and John Stuart Mill maintained that this produce "distributes itself by spontaneous action." These explanations are obviously unilluminating and do not make us any the wiser.

The method of distribution¹² obtaining in modern society, though complex, may be explained in simple words as below. The entrepreneur works as the distributor. Before actual production is commenced, he calculates how much produce is likely to be sold and at what price. This gives him *Gross Produce*. Then he subtracts from *Gross Produce* the replacement and depreciation charges and

¹¹This is also the view of American economists in general.

¹²Penson has explained this point very lucidly in this book. *The Economic of Everyday Life*, Part I, pp. 143-144. Text-book writers on the subject have generally followed him.

taxes to be paid to the Government. The balance is the *Net Produce*. The above calculation requires comprehensive estimation and forecast ; but as he is supposedly in the know of the actual facts and is experienced, his estimation is generally a near approach to accuracy. After finding out the Net Produce available for distribution in this way, he proceeds to make bargains with landlords, capitalists, labourers and organizers for the supply of land, capital, labour and organization respectively, taking care that a sufficient margin is left from the *Net Produce* for himself. Production is then commenced and goods are sold as they are produced. In the end, if the net produce realised exceeds the sums paid out as rent, interests, wages and salaries, the surplus is the reward or profit of entrepreneur ; if the former falls short of the latter, the entrepreneur suffers a loss.

(B) *How is the Share of Each Agent of Production Determined ?* This is perhaps the most difficult and important problem of Distribution. It shall be discussed exhaustively in the following pages and may be given a short and provisional treatment here.

Each factor of production, it must be remembered, is just like a commodity and its reward is determined by the inter-action of demand and supply. Entrepreneur, when purchasing a factor of production, has a maximum price to offer ; he will not pay more than that. His maximum is determined by the marginal productivity of a particular factor of production. Just as in the case of an ordinary commodity, the maximum of the buyer is determined by the marginal utility of the commodity. The owner of a factor of production has a minimum price determined on a rough estimate of expenses of production ; he refuses to accept a price lower than this. *Between these maximum and minimum limits, the price is determined according to the relative forces of demand and supply existing, at the time.* The reward of the entrepreneur, as we have already stated above, is the residue of the Net Product left after the satisfaction of all other claims.

It is, indeed, the study of the determination of the share of each factor of production which constitutes the main body of the subject of Distribution. Distribution, it will be realised, is merely the application of the theory of value to various factors of production.

TEST QUESTIONS

1. Explain the meaning of Distribution. Is it used in any other sense as well ?
2. Describe the origin of the problem of Distribution. 'The problem of Distribution has become very acute in modern times.' Elucidate.
3. What is the problem of Distribution ? What are its important issues ?

4. What do you mean by National Dividend ? Discuss fully.
5. What is the actual method of distribution obtaining in practical life ? Who share the National Dividend ?
6. Describe the theory by which the share of each agent of production is determined.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. Write a note on National Dividend. (1951)
2. Write a note on Net Product of an Industry. (1948)
3. What do you understand by distribution ? What is distributed and how ? (1947)
4. Briefly explain the problem of distribution. (1943)

Patna, Inter. Arts

5. What do you understand by Production in Economics ? Why is it so difficult to distribute the fruits of production in modern society ? (1948S)
6. What is the meaning of distribution in Economics ? How does it take place ? (1946S)

Patna, Inter. Com.

7. What do you mean by National Dividend ? How is the share of labour in the national dividend determined ? (1948S)

Sagar, Inter. Arts

8. What is national dividend ? Amongst whom and how is it distributed ? (1949 Supp.).

Banaras, Inter. Arts

9. What do you study under Distribution ? What is dividend and how does its distribution take place ? (1945)

Nagpur., Inter. Arts

10. Among whom is wealth distributed ? Explain how wealth is distributed in an organised society. (1949)

Nagpur, Inter. Com.

11. Discuss the inter-relationship between national dividend and population. (1949)

Bombay, Inter. Com.

12. What is meant by 'national dividend' ? What principles govern its distribution ? (1948)

Poona, Inter. Com.

13. What is National Dividend ? How is it measured ? (1949)

Rajputana, Inter. Com.

14. What do we study under Distribution ? What is actually to be distributed ? (Raj., I. Com., 1943)

15. What do you study under Distribution ? What is divided and how does the distribution take place ? (Raj., I. Com., 1940)

Delhi, Higher Secondary

16. Explain the meaning of Distribution, bringing out clearly the various problems involved in it. (1950)

CHAPTER 59

MOBILITY OF FACTORS OF PRODUCTION

Some of the earlier European writers on Economics assumed the existence what may be called complete Mobility of Labour; they assumed, that is, that labourers would go to work wherever the inducements were greatest; almost as certainly as water will flow downhill until it reaches the lowest possible level. Such perfect mobility probably does not exist.—*Moreland*.

§ 1. INTRODUCTORY

Before discussing how the reward of each agent of production is determined, we shall address ourselves to the subject of the mobility of factors of production.

Meaning of Mobility

The word *mobility* is generally used with reference to a factor of production. Mobility, according to dictionary, means the capacity to move easily. The mobility of a factor of production, therefore implies its capacity to move from one place or use to another place or use, easily and quickly. Land, labour, capital, organization and enterprise, are all mobile in varying degrees.

Advantages of Mobility

Mobility of a factor of production is advantageous in several respects :

(1) *Proper Distribution*. If mobile, a factor of production easily changes the place or field of its application; it moves from the place where it is abundant to one where it is comparatively scarce. Thus, the curious paradox of the plenty of a factor at one place and its scarcity at another within the same country and at the same time, becomes a thing of the past, and the resources of the country are well organized to secure the maximum national dividend.

(2) *Equalization of Reward*. Due to the mobility of a factor of production, its owner is enabled to employ it in the most remunerative channels. This tendency ultimately results in the wide-spread equalization of reward of that factor of production.

(3) *Equalization of Marginal Productivity*. As a result of the mobility, an *entrepreneur* is able to follow the law of substitution. He substitutes a cheap factor of production for a dear one till he finds that the marginal productivity, *i.e.*, the wealth produced by the marginal (or final) unit of each factor of production is equal. This is known as the *Law of Equi-Marginal Productivity*. A faithful ad-

herence to this law, made possible by the mobility of various factors of production, is the hallmark of efficient organization and yields maximum profit.

Obviously, the mobility of various factors of production is advantageous to their owners, their employers and the country as a whole alike.

The Assumption of Free Mobility

The old economists, known as classical economists, assumed the free flow of factors of production from less profitable to more profitable fields of their application. This is the necessary corollary of perfect competition. In actual practice various obstacles stand in the way of free mobility. Perfect mobility, like perfect competition, does not actually exist. Since the assumption of free mobility in the orthodox economic theories is removed from reality, they sometimes become hypothetical in their nature.

§ 2. MOBILITY OF LAND

Land cannot move from one place to another; in other words, place mobility is not possible in the case of land. But a plot of land devoted to one use can be put to some other use subsequently. For instance, a plot of land used for the growth of wheat can be made to grow millet. Again, land used for agricultural purposes can be utilised for constructional purposes. But land devoted to the construction of buildings cannot be used for cultivation unless the building has long disappeared.

There are various obstacles hindering the mobility of land from one use to another. Due to sheer conservatism, cultivators may refuse to grow maize on a plot of land so far devoted to millets though the former might be more profitable; or they might not possess sufficient knowledge for the cultivation of the latter while they might be well qualified for the former. Lack of proper equipment, seeds and such other things might disable them from changing the crop raised. Marketing difficulties might also forbid any change. Happily, all such obstacles to the mobility of land are gradually losing their force.

§ 3. MOBILITY OF LABOUR

Meaning and Kinds

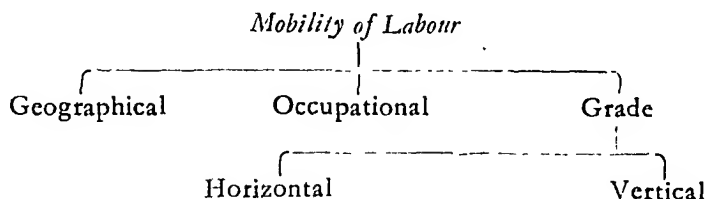
By the mobility of labour we mean its ability and willingness to move from one place, occupation or grade to another place, occupation or grade. Mobility of labour is of three varieties :

(1) *Geographical or Place Mobility.* The movement of labourers from one place to another is known as Geographical or Place

Mobility. The movement of a labourer working in Allahabad to Banaras or Calcutta is an instance of geographical mobility.

(2) *Occupational Mobility.* If a labourer changes his occupation, his mobility is said to be Occupational Mobility. If a driver becomes a clerk, his mobility is occupational.

(3) *Grade Mobility.* The movement of labourer with respect to the grade of work is known as *Grade Mobility*. The mobility of labour in the same grade is known as *horizontal mobility*. For instance, a fireman in one glass factory might move to the job of a fireman in another glass factory, if he gets higher wages, more leisure or better treatment there. The movement of labour from one grade to another grade is known as *vertical mobility*. The promotion of an assistant manager to the post of a manager is an example of vertical mobility.¹



These varieties of Mobility of Labour are not mutually exclusive, i. e., it must not be understood that a particular case of mobility can be only of one variety and not of more than one. On the other hand, a case of mobility may be geographical, occupational as well as grade mobility. Suppose a man from Allahabad working as an unskilled labourer goes to Kanpur to work as a carpenter, his mobility is geographical since he has changed the locality, occupational since he has changed occupation, and grade since he has been promoted to a higher grade. But horizontal and vertical mobilities, being the two types of grade mobility, do not overlap. A mobility can be either vertical or horizontal, and not both at the same time.

Geographical Mobility

Geographical mobility of labour is common everywhere in the world. In our country, though not of considerable importance at present, it is definitely increasing. Geographical mobility is either permanent or temporary. Sometimes labourers leave one place for good and settle at another place permanently. It may happen due to *social causes* like excommunication ; *economic causes* like the sale or

¹ Writers have not paid as much attention to the subject of *mobility* as it deserves. Classification of the mobility of labour in particular is not always free from vagueness and ambiguity. I have tried to be as logical and unambiguous as possible in the above classification.

dispossession of land or better conditions of employment available elsewhere; or *religious* causes like Hindu-Muslim riots*. Permanent mobility is not so important in India as temporary geographical mobility. Cultivators generally go to the neighbouring industrial towns during the off season, when they are idle, only to come back to their fields after a short period. The hill exodus of Government offices, occasional transfer of Government officials and movement of labourers to the place of fairs or *m las*, are other instances of temporary mobility. Temporary mobility is encouraged by lack of employment, and climatic, technical, political and administrative considerations.

Labour is the most difficult factor of production to move from one place to another because of various personal considerations even when such movement is economically profitable to labourers. But with the spread of education, dissemination of knowledge regarding possibilities of employment at other places, and under the pressure of struggle for existence, labour has begun to move from place to place.

Occupational Mobility

Mobility from one occupation to another occupation takes place when the general attractiveness of the latter exceeds that of the former. The following are the factors that attract labourers from one occupation to another: (1) *High wages*. Other things remaining the same, an occupation promising higher wages will attract more labourers as compared to those occupations where wages are low. (2) *Agreeableness of work*. Agreeableness of the work attracts labourers and its disagreeableness repulses them. (3) *The ease of learning the business*. If a business is easy to learn, it becomes more attractive to labourers as compared to one which necessitates difficult, costly and long apprenticeship. (4) *The regularity and security of employment*. If the employment is secure and regular, it is very attractive to workers. (5) *The possibilities of success and rise*. The occupation where chances of success are great and the scope for progress is considerable, is always liked by workers. (6) *The degree of trust reposed in the worker*. If the employment requires a high degree of honesty and sincerity, the reward and prestige attached to the office are considerable. It becomes attractive to men endowed with integrity and honesty but unattractive to those who lack these qualities. It may be emphasized, however, that though all these factors have a telling effect on occupational mobility, the most important of them is the first one, namely, the rate of wages. Other factors are static and do not vary considerably from time to time; therefore, they exert little influence on occupational mobility.

*Patses first came to Bombay due to a religious cause.

The occupational mobility of labour also depends upon its skilled or unskilled nature. Unskilled labourers have to do the work which requires no skill or training, whatever might be the occupation. As such, they can easily move from one occupation to another under the influence of increased wages. Skilled labour, on the other hand, is specialized. Skilled labourers in a particular occupation are specially trained for the purpose; and while they may be very suitable for the jobs they have been trained for, they may be misfits, or no better than unskilled labourers, in other occupations. As such, skilled labour is not very mobile occupationally.

The inability of skilled labour for occupational mobility is weakening gradually. As education is increasing, certain branches of knowledge and training hitherto confined to a comparatively few persons are becoming the possession of the majority, and the gulf between skilled and unskilled labour is being levelled up. Again, the spread of machinery and the division of labour to an ever-increasing extent, have simplified each task to the maximum degree and have made them very much alike.

In India occupational mobility is little due to the lack of education, absence of machinery and conservatism of the people. It has been rendered smaller still by the rigid caste system prevalent amongst the Hindus. According to this system, the occupation of a man is determined at the time of his birth and he cannot change it without arousing social disapproval and opposition, which few can risk. For instance, a milkman would not take up the work of a cobbler lest he might be expelled from the caste. Similarly, a cobbler cannot think of becoming a sweetmeat-seller lest he might displease the members of the society and might rot in hell in the next world for spoiling the religious faith of others. The caste system certainly has the advantage that it preserves the hereditary skill and is an excellent system of family apprenticeship. But it becomes vicious when no exceptions are made to it. In our opinion persons of one caste should be allowed to change their occupation if (1) the demand for labour is comparatively high in other occupations, which is expressed by high wages prevailing there; or (2) if they have natural bent towards other occupations. Luckily, the caste system is weakening with the spread of education and the growing realization of its demerits. Signs of dissatisfaction against the system have already begun to appear and are very likely to bear fruits in course of time.

Grade Mobility

Grade mobility, as said above, may be horizontal or vertical.

Horizontal Mobility. The mobility from one grade to another may be in the same occupation. For instance, a labourer working

in a particular sugar factory may have a cruel boss ; he will, then, take the first opportunity to move to another sugar factory whose boss is kind and considerate. Horizontal mobility in the same occupation is not so important as the horizontal mobility from one occupation to another. In the latter case, all considerations discussed above regarding occupational mobility apply with equal force.

Vertical Mobility. Mobility from one grade to another may be upward or downward, *i. e.*, a worker may move from a particular grade to a higher grade or to a lower one. It is easier to move down the scale than to move up.

The movement to a higher grade is possible in the following cases : (1) If a worker becomes distinctly efficient for a higher grade through education and experience, he might scale up. (2) If the demand for men able to fill up the posts of higher grade increases as a result of increased demand for the products of that industry, an opportunity for vertical mobility of this type arises. (3) If the labourers of the higher grade are somehow incapacitated or die or are withdrawn from the work due to certain reasons, labourers of lower grade get promotions.

Labourers go down from a higher grade if they lose efficiency or if unemployment spreads.

Hindrances to the Mobility of Labour in India

Of all the agents of production, labour is said to be the most immobile. Labour is inseparable from labourers : the two move together. As such, many personal factors hindering the mobility of labourers become obstacles to the mobility of labour as well. Besides, many extra-personal factors also exert influence on the movement of labourers and, therefore, of labour. In India, the mobility of labour is hindered by the following factors :

(1) *Love of Home, Place or Occupation.* Love of home, family ties, affection for a particular locality and appreciation of life in the country as opposed to dislike of life in the town, obstruct the geographical or place mobility of labourers. Love for a craft or the feeling of family pride in it, hinders occupational mobility. A man being what he is, cannot generally raise himself above such personal considerations.

(2) *Lack of Ambition.* If a labourer is satisfied with his present lot, he has no ambition to move. In Western countries labourers are very materialistic and are constantly on the look out to raise their standard of living. Indian labourers, on the other hand, are fatalistic and of a spiritual bent of mind. They think that their financial position is determined by fate, and cannot be improved. Moreover, they always think in terms of the next world where they will go after

their death, which makes them care more for religion than for money.

(3) *Social Customs.* The rigid social customs of India, which act as a drag on the wheels of progress in general, also hinder the mobility of labour. Of such social customs, caste system and the joint family system are the most important. We have already discussed how the caste system checks mobility. The joint family system is a similar obstacle in the path of mobility. In Western countries, a family consists of the husband, the wife and minor children. In India, on the other hand, the family is joint in the sense that it consists of a large number of families. As a matter of fact, father and mother, uncles and brothers, along with their wives and children—all live together. This system certainly has the advantage that each member works according to his capacity and gets according to his needs. The old, the infirm and the unemployed are properly looked after. But it checks geographical mobility by strengthening family ties. Again, it is prejudicial to one's ambitions because personal exertion is not proportioned to personal income and, as such, hinders occupational and grade mobility.

(4) *The Nature of Occupation.* Sometimes the nature of occupation is such that a movement results in loss of efficiency. This is particularly true in the case of agriculture which is the occupation of the majority of Indians. If a cultivator moves from one place to another, he might have to face strange climate, soil and crops. A substantial part of his old knowledge might become useless and new training might become necessary. This is one important reason why our agriculturists are not mobile. This is not so with artisans who can move from town to town and village to village with their bag of implements doing the same work in the same fashion.

(5) *Difference in Surroundings.* India abounds in languages, religious and social customs, climatic condition and modes of living. This brisk variety discourages geographical mobility. Life amidst strangers speaking different languages, following different social customs, eating different food and wearing different clothes becomes very difficult indeed.

(6) *Poverty of the Masses.* The people of the country are very poor and find themselves unable to bear the expenses of migrating from one place to another where they might expect to get better reward. Again, due to poverty they cannot get training and education necessary for vertical mobility.

(7) *Lack of Means of Transport and Communication.* Means of transport and communication are not very wide-spread, cheap and easy in our country. Where difficulty exists, geographical mobility is hindered. This obstacle was very great in the past but it has lost much force due to the recent developments in the means of transport and communication.

(8) *Ignorance.* The want of knowledge of the place and occupations where high wages may be expected is an important obstruction to geographical, occupational and grade mobility. As most of the people are illiterate, generally ordinary posts are not advertised. Other means of information like labour exchanges, information side of the trade unions and State guidance into the matter, are conspicuous by their absence. Where, however, information is available, mobility of labour is a common feature to be met with. For instance, many labourers from the villages of the Uttar Pradesh have gone to Bengal and Behar to work in factories; and the information sent by them to their villages of high wages that they earn has been responsible for the mobility of labour on a large scale.

(9) *Primitive Conditions of Work.* Over the greater part of the country, old methods of production are followed. Spread of machinery and the division of labour have not yet made much headway. As such, occupational mobility is hindered.

All these obstacles have made the typical Indian labourer stay-at-home and satisfied with the occupation and grade he happens to be attached to. Luckily, the force of these factors is losing vigour, though gradually. Under the stress of circumstances and the contact with westerners, social customs are losing their hold. Caste system is weakening and joint family system is breaking asunder. Means of transport have improved considerably, particularly due to the advent of motor lorry transport. Primitive conditions are undergoing a change. Large-scale industries are being set up in all directions and for all purposes. Mechanisation and division of labour are increasing as a consequence.

§ 4. MOBILITY OF CAPITAL

By mobility of capital is meant its ability and willingness to move from one place or use to another place or use. Capital is the most mobile factor of production. Capital can be physically detached from its owner; therefore the various and diverse personal factors like love of family, attachment to surroundings, etc., which influence the mobility of labour do not influence the mobility of capital. Moreover, capital can be easily and cheaply transmitted over long distances unlike labourers for whose transport conditions are not so simple.

The financial mechanism of a nation is the usual agency through which transfers of capital are made. In the modern age (a) a capitalist wanting to withdraw capital from, say shares of cotton textile companies and to re-invest it in those of, say iron and steel industry, may simply ask his *stock exchange brokers* to do the needful.

(b) Some capitalists deposit money with a *bank* and leave at their option the investment, withdrawal and re-investment of capital. (c) There are some capitalists who may *re-invest capital directly* in a business where their control is supreme. For instance, a man might set up his own firm of, say sugar manufacturing and withdraw for the purpose money invested in tea shares or deposited in a bank.

Factors Leading to the Mobility of Capital

The most important conditions governing the mobility of capital are its security and its profitability, *i.e.*, the rate of interest obtainable. Unless the capitalist is sure that the new channel of investment is reasonably safe and sound, he will not ordinarily like to risk his capital in it. Other things remaining the same, the order of preference follows the order of security. The rate of interest obtainable is another important consideration. Of the two investments equally secure, one giving high rate of interest will be preferred. The importance attached to either of these factors, depends upon the temperament of the investor. Cautious investors give more weight to security, while speculative investors are more attracted by profitability.

Other subsidiary factors governing the mobility of capital are (1) the existence of satisfactory and diverse channels of investment, which is dependent upon the economic progress of the country; (2) the existence of rapid means of communication and transmission of capital; (3) the political stability of the region of investment; and (4) the development of the financial mechanism.

The mobility of capital varies according to its liquid or fixed character. Liquid capital, *i.e.*, cash and goods which can be easily converted into cash, possesses a high degree of mobility. For instance, capital invested in securities always purchased and sold in stock exchange markets can be easily disposed of and the capital withdrawn to be put to some other use. Fixed capital, on the other hand, is not so mobile. Capital invested in buildings, machinery, etc., cannot be easily withdrawn. The sale of such goods takes time and involves loss.

Mobility of Capital in India

Capital in India is not very mobile. (1) As the country is in the *infancy of economic development* many new ventures are certainly being embarked upon, but their capacity is yet untried and their profit-yielding capacity still problematical. Under the circumstances, the mobility of capital cannot be great. (2) Our *financial mechanism is not well developed*. Banks have not yet penetrated into the interior. Moreover, they lack in variety. This hinders mobility. For instance,

if a man in the village Phulpur wants to close down his grain shop and to invest this money in the bank deposit, he finds that he cannot do so, there being no bank in his village. Stock exchange markets are also very few and are not accessible to all. (3) *Lack of enterprise.* Channels of investment are few in this country as people lack the spirit of enterprise. They do not have the courage to start new ventures. (4) *Dishonesty.* Usually bogus companies are started and capital is raised under high-sounding promises but within a short period the capital is dissipated in the high salaries and other payments to the promoters; and very soon the concern goes to the wall. This is very discouraging to investors. (3) *The industrial policy of the State.* The policy of the Government towards our industries during British period was step-motherly. The policy of discriminating protection followed by that Government did not assure the entrepreneurs that if they start a new industry, it would receive proper support from the Government. After the attainment of freedom, the government followed a confused and unrealistic policy.

But conditions are fortunately changing for the better, though by slow degrees. New ventures are coming into existence. Cement factories, cigarette factories, hydro-electric works, etc., are coming into prominence. Attention is being paid to the development of banking and stock exchanges. Agitation for a sympathetic industrial policy of the State is being carried on. It is expected that in course of time conditions will become favourable for the mobility of capital.

§ 5. MOBILITY OF ORGANISATION

Organization is of the nature of high-grade labour. Organizers are highly educated individuals and being sufficiently progressive as a general rule, are mobile geographically. Vertically, too, they are very mobile. Some difficulty, however, arises in the case of occupational mobility in so far as the organizational problems of an industry are peculiar to it.

§ 6. MOBILITY OF ENTERPRISE

By mobility of enterprise we mean the capacity of risk-takers to move from one occupation to another where reward is higher, in proportion to the risk. In our country enterprise is slowly developing. Formerly its mobility was very little. Our entrepreneurs used to take the minimum risk and to float concerns for the objects found profitable by their foreign compeers in this country. But with the spread of education, growing contact with western industrialism and economic advancement of the country, the mobility of enterprise is increasing. The unrealistic industrial policy of the State, which we have already referred to, is the most important obstacle in the way and needs an immediate revision.

TEST QUESTIONS

1. Explain the meaning of mobility of a factor of production. What are the advantages of mobility ?
2. Write short note on the mobility of land, organisation, and enterprise.
3. Explain the meaning of mobility of labour and discuss its kinds. Are the varieties of mobility of labour mutually exclusive ?
4. Write an essay on Occupational Mobility of Labour with special reference to India.
5. Write short notes on geographical mobility, horizontal mobility and vertical mobility.
6. What are the hindrances to the mobility of labour in India ?
7. What are channels of moving capital ? Discuss the factors leading to the mobility of capital ? Why capital is not mobile in India ?

EXAMINATION QUESTIONS

U. P., Inter Arts

1. What do you understand by mobility of labour ? How far have social customs influenced the mobility of Indian labour ? Suggest remedies. (1951)
2. Write a note on Mobility of Labour. (1950, 1949)
3. What hindrances prevent mobility of labour from one part of India to another. If mobility of labour is complete, what will be its effects on the wage rate ? (1947)
4. Discuss the various aspects of the mobility of labour in India. How does it affect wages ? (1940)
5. What is meant by mobility of capital ? What are the causes which hinder the mobility of capital in India ? What remedies would you suggest for the same ? (U. P., 1936)

U. P., Int. Com.

6. Explain the mobility of labour and account for the comparative immobility of Indian labour. (1950)
7. Discuss the factors which influence mobility of labour and capital. (1936, 34)

Rajputana, Int. Arts

8. What is meant by mobility of labour ? What are the obstacles to mobility of labour in India ? (1945)
9. State and explain the obstacle to mobility of labour in India. (1941)

Banaras, Int. Com.

10. On what factors does the mobility of labour depend ? (1949)

Sagar, Int. Arts

11. What is mobility of labour ? Explain the different kinds of mobility of labour and show how it is influenced by some factors ? (1950)
12. What do you understand by mobility of labour ? What factors retard the mobility of labour in India ? (1949)
13. Write note on mobility of labour. (1949 Supp.)

Sagar, Int. Com.

14. What do you understand by mobility of labour ? Name its different types and how far it is obtainable in India ? (1949 Supp.)

Nagpur, Int. Arts

15. What do you understand by mobility of labour ? Explain its economic importance. (1948)

16. What are the factors that affect the mobility of labour in India ? (1948)

17. Write a note on mobility of labour in India. (1947)

Nagpur, Int. Com.

18. Write a note on mobility of labour in India. (1947)

Bombay, Int. Com.

19. Write a note on Mobility of Labour. (1948)

Patna, Int. Com.

20. Why do you want labour to be mobile ? What are the factors which reduce the mobility of labour in India ? (1944)

Panjab, Int.

21. On what factors does mobility of labour depend ? What is the importance of mobility of labour ? (1949)

CHAPTER 60

RENT

The exchange in value of all commodities, whether they be manufactured, or the produce of the mines, or the produce of land, is always regulated by those who continue to produce them under the most unfavourable circumstances. Corn is not high because a rent is paid but a rent is paid because corn is high. Rent is not a component part of the price of commodities.—*Ricardo*.

§ 1. MEANING OF RENT

Economic Meaning of Rent

It was said in the preceding chapter that the share of the national dividend accruing to the landlord is called rent. Rent may, therefore, be defined as the income which accrues to the landlord from the ownership of any natural agent such as land, mines, water-power, etc. As Marshall puts it, the income derived from the ownership of land and other free gifts of nature is commonly called Rent.¹ From the point of view of the entrepreneur, rent may be said to be the payment for the use of land.²

Ricardo's Definition. Ricardo's definition of rent is sometimes quoted with approval in the text-books of Economics and committed to memory by the students. According to Ricardo, "Rent is that proportion of the produce of the earth which is paid to the landlord for the use of the *original and indestructible* powers of soil". This definition of rent, however, is not quite correct. The following are its inaccuracies :

(1) Ricardo restricts the term rent to the payment made for the use of "soil" or "land". He excludes other free gifts of nature. As such his definition is too narrow.

¹Marshall, *Economics of Industry*, p. 52.

²*Rent of Land (Surface)*—If we take into account only land surface, we will find that rent in that case depends upon the following three factors : (i) *Original Fertility of the Soil*. Other things remaining the same, the more fertile the land, the higher will be its rent. (ii) *Situation of Land*. Other things remaining the same, the better the situation of land, the higher will be its rent. (iii) *Capital Sunk in Land*. Sometimes the capital sunk in land becomes just like land, and it is subject to the same economic laws which govern land rent and depends to some extent upon the capital so sunk. Hence we may define rent as *payment for the use of fertility of soil or its location or both as well as any capital so sunk in the soil as to obey, the economic laws concerning land*. See in this connection S. E. Thomas, *Elements of Economics*, p. 24 ; and Clay, *Economics for the General Reader*, pp. 351-352.

(2) The expression "*the original and indestructible powers of the soil*" is not a happy one. Fertility, which is an important factor in determining rent and value of land, is definitely destructible. Again, there are some properties of the soil which are not original but which are not distinguishable from land. Capital sunk in the land after a long time becomes indistinguishable from land and obeys the same economic laws which land obeys. The income from such acquired power or property is rightly regarded as rent.

Popular Meaning of Rent

The scientific or economic meaning of the term "rent" should be distinguished from its popular sense. In the popular sense the term is applied to the periodical payment for the use of a house including the ground on which it stands, of a farm or an estate, of forest, of a fishery, or a mine. According to this definition, rent includes not only payment for the use of land but also interest on capital invested in buildings and elsewhere, depreciation of fixed capital, and profit. For instance, the payment which a tenant makes to his landlord for the use of his house includes not only rent in the economic sense but also interest on the capital spent in the construction of the building, its early depreciation, and remuneration for the risk or enterprise. Similarly, the rent paid by a cultivator for the use of a farm includes not only pure rent but also interest on capital sunk in farm-building, drainage, etc., depreciation, and reward for risk-taking. The reader should remember that economists do not use the term "rent" in its popular sense.³ Whenever he comes across the word "rent" in any book on the subject of Economics, he should take it to apply in the scientific, *i.e.*, economic, sense.

Rent and Tenancy

It should not be thought that rent necessarily implies the existence of the *tenant* and the *landlord*. In other words, it must not be supposed that rent is the payment which the *tenant* pays to the *landlord* and that it cannot arise unless land is let out by the latter to the former. As a matter of fact, landlord can use his land in either of the two ways: he may let it out to tenant, or himself use it productively. It is in the first case that he gets a fixed annual payment called rent. In the second case he does not receive any such reward

³Rent is popularly thought as a payment for the privilege of enjoying the use of any material object, a piece of land, a house, a boat, or anything you please. As used by most economists, on the other hand, rent means only a payment made for the use of *land*, that land further being conceived as unmodified by human art, or at least modified only in certain very fundamental and substantially unalterable ways.—F. M. Taylor, *Readings in Economics*, p. 181.

but he may well be supposed to be his own tenant and to pay rent to himself.⁴

§ 2. ECONOMIC RENT AND CONTRACT RENT

Economists divide rent (in its scientific or economic sense) into *Economic Rent* and *Contract Rent*, the difference between which is of fundamental and vital importance.

Economic Rent

Land differs in quality. Some plots of land are very fertile and very favourably situated; others, comparatively unfertile and unfavourably situated. At a particular time, there is some land under plough whose fertility, or location, or both, are worst of all the cultivated tracts, so much so that it cannot afford to pay any rent. This is called the *No-Rent Land* or *Marginal Land*. The output of every other land under plough is greater than that of the No-Rent land. The *surplus produce (or differential gain)* arising on supermarginal lands is called Economic Rent. Suppose at any particular time three plots of land, A, B and C are under plough; C is the no-rent land and yields 1,000 maunds of wheat. The application of equal productive resources results in 1,500 maunds of wheat from B and 2,000 maunds from A. The economic rent of B will, then, be 500 maunds and of A, 1,000 maunds. Economic Rent may as such be defined as the *surplus produce or differential gain accruing to the owner of the land by virtue of its relative advantages of fertility, or location, or both, over the no-rent land*.

Contract Rent

The rent which is actually paid by the tenant to the landlord for the use of land is known as Contract Rent. It is called contract rent because it is determined by a contract between the parties concerned. Contract rent of a land may be equal to, or greater than, or less than, its economic rent. Under free competition, the rent actually paid is equal to the economic rent. If competition among landlords is comparatively greater than that among the tenants, or if some custom or law prejudicial to high rents is in force, contract rent may be less than the economic rent. On the other hand, if tenants compete more freely among themselves than landlords, or if some custom or law operates against tenants, contract rent may exceed

⁴The owner may be the cultivator, in which case he gets the rent. The owner may be the community, which then gets the rent. (This is the socialist proposal, which would not abolish rent, but transfer it to the State). Or, the owner may have let his land to a farmer, in which case the farmer pays the rent to the owner.—Hunt, *Man and Wealth*, pp. 30-31.

economic rent.⁵ The practice of charging a contract rent in excess of the economic rent is called "rack-renting".

§ 3. DETERMINATION OF CONTRACT RENT

Contract rent is the price paid for the use of land and, like the price of any other commodity, is determined by the forces of demand and supply.

Demand for the Use of Land. The cultivator agrees to pay rent for a plot of land because he thinks that if he cultivates it, he would get a return which would enable him to pay all the expenses of cultivation, to get an income for himself and to have a surplus which he can pay as rent. This surplus is the maximum that he will be willing to pay to the landlord. Good land yields a larger surplus per acre than a bad land; the tenant's maximum, as such, will be higher in the former case than in the latter. In other words, his maximum will vary with the character of the soil and the location of land, the nearness of the market, facilities for marketing, and the price he is likely to get for the produce.⁶

Supply of the Use of Land. The landlord may use the land himself or may be willing to let it out. In the latter case there is said to be a supply of the use of land. The landlord calculates in his own mind, the surplus which may accrue to him if he cultivates the land himself. This surplus is the minimum which he will charge as rent for the use of his land. If he does not get this minimum as rent, he might cultivate the land himself or put it to some other purpose.

Determination of Contract Rent. The contract rent is determined by the inter-action of the demand for and the supply of the use of land. The greater the intensity of the demand and the keener the competition among tenants relative to supply, the more will be the tendency of contract rent to reach the maximum. On the other hand, the greater the urgency of the supply and keener the competition amongst landlords relative to demand, the more will the contract rent tend to reach the minimum. Generally speaking, in new

⁵It is easy to conceive of conditions which may cause contract rent to differ from economic rent. Thus, an unwillingness to leave a farm which has been held by patents and grand-parents may serve to induce a submission to the exaction of a rent which leaves an inadequate remuneration to the farmer for his labour. Similarly, a landlord may be unwilling to press an old tenant, even though the land has risen in value. Further, capital invested in the soil cannot be withdrawn at short notice. Some improvements may take years to exhaust, and a tenant, who was unable to secure adequate compensation for unexhausted improvements effected at his cost, might lose less by renewing his lease at a rent higher than the land without those improvements could bear, than by abandoning the values represented by improvements—A. W. Flux, *Economic Principles*, pp. 102-103.

⁶For an able discussion of the factors affecting the utility and comparative utility of land, see Richard M. Hurd, *Principles of City Land Values*.

countries where land is abundant and competition among landlords is very great, contract rent is usually low. In old countries, particularly when they are thickly populated, competition among tenants is enormous and contract rent is more or less equal to economic rent. Sometimes cultivators pay even more than the economic rent in case competition is very keen among them or if they have no occupation besides agriculture to follow. This is called rack-renting and is common in India.

§ 4. DETERMINATION OF ECONOMIC RENT: RICARDO'S THEORY

We shall now consider how economic rent is determined. Theory of Economic Rent is a very important problem of distribution. When the expression "Theory of Rent" is used, without any adjective before the term *Rent*, usually economic rent is meant.

The theory of economic rent was first propounded by David Ricardo (1773-1823), one of the most distinguished of the English classical economists; and is called the Ricardian Theory of Rent. In this theory Ricardo, followed by later economists, focussed attention on agricultural land only. Other natural gifts were excluded from consideration, since the principles enunciated here apply with equal force to them as well.

Nature of Land

In order to be able to understand Ricardo's theory of rent, we should first understand certain fundamental characteristics of land.

(1) *Land Differs in Fertility.* Some plots of land are more fertile than others, *i. e.*, the application of equal doses of labour and capital results in a higher yield in some cases and less in others. It is this difference in fertility, combined with variations in locality, which gives rise to a surplus or differential gain on the supermarginal lands. This surplus is economic rent.

(2) *The Cultivation of Land is Subject to the Law of Diminishing Returns.* The return due to the application of a particular dose of labour and capital is less than that due to the preceding dose. As such, all the doses (except the marginal dose) enjoy surplus or differential gain over the final or marginal dose. This surplus, as we shall presently see, is economic rent.

(3) *Rent depends upon two main qualities of the land—fertility and location.* The more fertile a land, other things remaining the same, the higher will be its rent. Its location has similar influence on rent. Location implies, among other things, nearness of market, facilities of transport and the price prevailing in the market. Rent is the payment for the fertility and location of land.

Ricardian Theory of Rent

Ricardo started with the supposition of a vast tract of a virgin land just colonized by a small number of men. Since the land is

abundant and idle, no payment need be made for its use. Rent will not arise at this stage. The settlers will cultivate only the best or A grade land; and competition will reduce the price of the agricultural produce just to the level of the expenses of production.

With the passage of time, the population of the colony will increase through births, or immigration, or both. The demand for agricultural produce will increase as a consequence and inferior or B grade land will have to be brought under plough. Now the application of an equal number of doses of labour and capital will yield heavier crop on the superior or A grade land and smaller crop on the inferior or B grade land. The surplus yield of the superior land over the inferior land under plough, is the economic rent.

If the population increases still further, still inferior or C grade land will be brought under plough; and consequently rent on A grade land will increase while that on B grade land will begin to appear. This phenomenon of an increase in the rent of the super-marginal land and the appearance of rent on the (hitherto) marginal land, will go on repeating itself as population increases and sub-marginal land is picked up for cultivation.⁷

Illustration

Let us assume that the supposed colony possesses four grades of land. The first or A grade land is cultivated in the first instance; and for a certain outlay of labour and capital, yields 50 maunds per acre. After some time, the second or B grade land is also brought under plough. For the same outlay, its return is, say, 45 maunds per acre. A surplus of $(50-45) = 5$ maunds begins to appear on A grade land. This is its economic rent.

After some time the population increases so much that even the third or C grade land comes up for cultivation and its yield per acre on the above outlay is, say 35 maunds. Thus surplus produce or economic rent of A grade land is now raised to $(50-35) = 15$ maunds; while B grade land also begins to show a surplus of $(45-35) = 10$ maunds, which is its economic rent.

In course of time, D grade land will also come under cultivation. Suppose its yield is 20 maunds only. It will raise the surplus or economic rent of A grade land to $(50-20) = 30$ maunds; of B grade land, to $(45-20) = 25$ maunds; and on C grade land, rent will begin to appear to the extent of $(35-20) = 15$ maunds.

In the diagram on page 618 OA, AB, BC, and CD, are A grade B grade, C grade and D grade lands respectively. The application of an equal outlay on each of them gives an yield which is measured along the given scale and is represented by the rectangles standing just above the respective bases. CD is the no-rent land and does

⁷Carver, *The Distribution of Wealth*, pp. 205-206.

not yield any rent. All the other plots yield economic rent equal to the shaded portion of their respective rectangles.

Marginal or No-Rent Land

From the above discussion, it is plain that the no-rent or marginal land plays an important role in the determination of the economic rent. It is called No-Rent land because its expenses of production (excluding rent) are just equal to the price of its produce so that it cannot afford to pay rent. Being on the margin of cultivation, it is also called marginal land. The following important points must be remembered with regard to the marginal land :

(1) It has a decisive influence on rent. Its yield forms the base from which economic rent on super-marginal land is calculated.

(2) Market price of the agricultural produce is equal to the costs of production on the marginal land. It could not be less than the cost of production ; otherwise the crop will not be produced at all—the marginal land will remain idle. Nor could it be less than the cost of production ; otherwise a lower grade land will be brought under plough and the marginal land will become super-marginal land.

(3) Marginal land is not fixed. It is, on the other hand, very sensitive to variations in the price of agricultural produce.

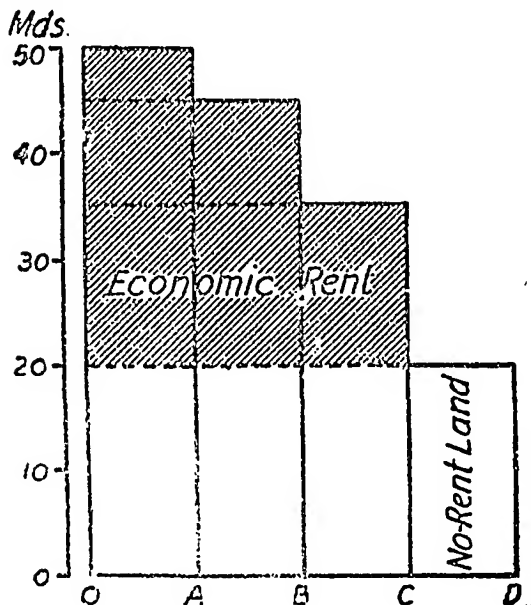


Fig. 65. Showing the origin of rent.

As soon as the market price goes up, the marginal land becomes super-marginal and the sub-marginal land, becomes marginal. On the other hand, if price goes down, the marginal land goes out of cultivation, a super-marginal land becoming marginal.

The Intensive Form of the Theory of Rent

In the above discussion we have exposed the theory of rent as applied to land cultivated extensively. The theory is also applicable to the land cultivated intensively. When the land is intensively cultivated, the yield due to successive doses of labour and capital goes on

diminishing till a stage is reached when the cost of the final dose is just equal to the price of the yield it grows. This is the marginal or no-rent dose. The produce due to all other doses exceeds that of the marginal dose. The surplus or the differential advantage thus appearing is the economic rent.

The diagram given above can also be used for explaining the intensive form of the theory of rent. Suppose, the yield due to the application of the first dose of labour and capital to plot of land is 50 maunds; that due to second dose, 45 maunds; that due to the third dose, 35 maunds; and that due to the fourth and final dose, 20 maunds. The rent in the case of first three doses is 30 maunds, 25 maunds and 15 maunds respectively, the fourth dose being no-rent dose.

OA, AB, BC and CD represent the four doses and the rectangles standing over them represent the yield due to each of them. The shaded portions of the rectangles over OA, AB and BC represent the surplus or the economic rent. Note that no rent arises in case of the marginal dose, CD.

An important point that arises from this discussion is that rent will arise even if all the land was of uniform quality. In such a case, extensive from of cultivation will not, of course, give rise to rent; but if the pressure of population necessitates intensive cultivators rent will arise as shown above.

Criticism of the Theory

Ricardian Theory of rent has been criticised on many grounds. The following are the main points of criticism :

(1) Ricardo maintains that rent is paid for "use of the *original and indestructible* powers of the soil." This expression is not very accurate. The powers of the soil, for which rent is paid, are not always original: in some cases they are acquired. Again fertility, which is one of the most important parts of the soil, is destructible.³

(2) His theory is said to be historically false. He said that the best land is first put under plough and later on land is picked up for cultivation on the merit of its goodness. It has been said against this contention that the order of cultivation is just the reverse; men proceed from inferior to superior land. But the contention of the critics is, in the first place, not free from doubt. Even if it were correct, it must be realised that Ricardo's historical order of cultivation is not of the essence of his theory. It is simply an illustration,

³Some economists defend Ricardo by stating that except fertility, other qualities of land like climate, extent and configuration are certainly indestructible. This statement, though correct, does not take away the force of the criticism.

a method of putting a thing. What he wants to show by this historical illustration is that different points of land differ in quality. And this, of course, is true.

(3) The most damning criticism against the Ricardian Theory is that it is thoroughly hypothetical and unrealistic. The assumption of perfect competition, on which the theory stands, is unreal ; it does not exist in practical life. And it makes the theory unrealistic too.

(4) Finally, it is said that no-rent land does not always exist. If a country is very thickly populated, even the worst land might bring some rent. This is true to a certain extent. But if the market extends beyond the national boundary, no-rent land may exist in some other country supplying the same market. Even if we suppose for the sake of argument that no-rent land does not exist anywhere in the world, no-rent dose must exist somewhere. And if so, it may be said to determine rent.

The conclusion is that the purport and the principles underlying Ricardo's theorization are quite correct on the assumption of perfect competition. The moment that assumption is taken away, his theory becomes inapplicable and it is the theory of contract rent which begins to apply.

§ 5. RENT AND PRICE OF AGRICULTURAL PRODUCE

The relation between rent and price has been a fond theme of economists. The question is often asked, whether the rent paid on land affects the price of agricultural produce or not ; so that if rent is increased or decreased, whether the price will behave similarly as a consequence or not. The answer was given by Ricardo long ago. He showed that rent does not determine price ; on the other hand, it is itself determined by price.

Rent Does Not Determine Price

The fact that rent does not determine price becomes clear if we take into consideration two fundamental facts : (1) Firstly, the price of agricultural produce equals the expenses of production on the marginal land. If the price exceeds the expenses of production, even inferior land will be brought under plough and the existing marginal land will cease to be the marginal land. On the other hand, if the price is less than the expenses of production, the cultivation of this land will become unprofitable and will, therefore, be given up. Thus it will, again, cease to be the marginal land. As such, *the price of agricultural produce must be equal to the expenses of production on marginal land* ; it can neither be more nor less. (2) Secondly, the marginal land (or marginal dose) does not yield any rent because its produce is only just sufficient to cover the expenses of production (excluding rent). Evidently rent does not enter into the expenses of production on marginal land.

Summing up these two facts, we may say that the price of the agricultural produce equals the expenses of production on the marginal land, which does not include the item of rent. Obviously the price of the agricultural produce is in no way affected by rent. Rent does not exert any determining influence on the price of agricultural commodities.

There is, however, an *unscientific* sense in which rent may be said to enter into price. We might say that rent enters into price inasmuch as it is paid by the cultivator of superior land *out of the price* which he gets for his product. But it does not enter into price in the sense, which is the correct and the scientific sense, that it determines the price, or that it is one of the elements of cost which determines the supply price of anything.⁹

Price Determines Rent

In fact, rent itself is determined by the price of agricultural produce. If the price of the agricultural produce goes up, it becomes possible to cultivate a sub-marginal land : the margin of cultivation having gone down, rent increases as a matter of course. A fall in the price of agricultural produce creates an opposite effect. It makes the cultivation of the marginal land unprofitable with the result that a super-marginal land now becomes marginal land. By thus pushing up the margin of cultivation, it reduces rent. Rent in this way varies with the price of agricultural produce.

Effect of Rent Remission on Price

Since rent does not affect the price of agricultural commodities, any reduction in it will fail to bring down prices. Even if rent is altogether remitted by landlords, the price of agricultural produce will remain unaltered. So long as the marginal land and the expenses of production on that land remain the same, price will also remain unchanged.

By the same reason, it can be easily shown that if rent is increased manifold, the price will remain the same. As Ricardo said : corn is not high because a rent is paid but a rent is paid because corn is high. Rent is not a component part of the price of commodities.

Exceptions : When Does Rent Enter into Price ?

There are, however, certain exceptional cases in which rent does enter into the price of agricultural produce. Ordinarily it does not enter into price because it is not an element of marginal expenses of production. In the following cases, rent does become an element of the marginal expenses and, therefore, enters into the price of the produce :

⁹Thomas, *Elements of Economics*, p. 251.

(1) If the State, or a body of landlords, has a monopoly of land, it may charge rent even on the marginal land. If so, rent will constitute a component item in the marginal expenses of production and will affect price. In India, it is said, the State, which enjoys the monopoly of landownership, charges rent even on no-rent land ; therefore, rent enters into price of agricultural produce in India.

(2) Where cultivators have no other occupation except agriculture, competition amongst them becomes so keen as to make them pay rent even on the marginal land. Here again rent enters into price. This is the case in India.

(3) When a land which is super-marginal with reference to one crop, is devoted to another crop with reference to which it becomes marginal, the old rent continues to be paid. For instance, a plot of land may be super-marginal and productive of rent when devoted to wheat ; but if it is now devoted to the production of, say barley, it may become marginal and incapable of yielding any rent. Still the old rent will be charged. Here, then, rent will enter into marginal expenses of production and, therefore, in price.

§ 6. FACTORS AFFECTING RENT

We have seen that price determines rent. Consequently, all those factors which affect the price of agricultural commodities necessarily influence rent. Improved transport, agricultural improvements, increase in population and general advance in civilization, are the most important of them.

Effect of Improved Transport

Improvement in the means of transport affects agricultural prices and the rent of a particular land according to the nature of the tract with which it is now connected either for the first time or with greater facilities than before.

(a) If the new tract, made accessible by the improved means of transport, effects comparatively high prices for agricultural produce, rent will tend to increase. For instance, the revolution in the means of transport during the 19th century enabled the American farmers to send wheat to England where it was sold at fairly high prices. In America the demand for land went up ; sub-marginal lands became marginal lands in quick succession ; and rents increased by leaps and bounds.

(b) If the new tract of land made accessible by improved means of transport, is a new source of supply of cheap agricultural commodities, rent will tend to fall. For instance, when America began to supply wheat to England in the 19th century at cheap prices, much land in England went out of cultivation ; super-marginal lands became marginal, and then sub-marginal in quick succession ; and rents decreased.

Effect of Agricultural Improvements

Improved methods of cultivation lead to the production of increased quantity of produce from the total land under cultivation. The demand for agricultural commodity remaining unaltered, their price will obviously shrink. The marginal land will go out of cultivation, it will become sub-marginal, and rents in general will fall. Rent arises as a result of the operation of the law of diminishing returns and, other things being equal, any factor retarding its operation, as is the case with agricultural improvements, lowers the rents. If, however, the demand for agricultural produce goes up, consequent upon a fall in the price of agricultural commodities, the shrinkage in rent may eventually be restored.

We cannot, in fact, be very definite about the effect of agricultural improvements on rent. Some economists hold the view that these improvements benefit poor land more than rich land; the latter already yield fairly heavy crops so that there is little incentive to increase their produce further: while the low yield of the poor land constantly offers this incentive. As such, agricultural improvements generally increase the output of poor land and tend to level the productiveness of the soil of different grades. If this point of view is correct, rent will tend to fall. In fact, "the irregularity of the applications of improvement causes varying effects on rent, and all that we can do is to indicate broad tendencies."¹⁰

Effect of Increase in Population

An increase in population raises rent. Increased population means greater demand for agricultural produce, which can be satisfied by forcing down the extensive or intensive margin of cultivation; in other words, by cultivating a hitherto sub-marginal land or by applying more dose of labour and capital to the existing cultivated land. In any case, the surplus or differential advantage of super-marginal lands, will increase and rents will go up. Moreover, as population increases, land will be required for such non-agricultural purposes as the construction of houses and factory-buildings, bazars and streets, etc. The rental value of land will rise due to this factor as well.

Effect of an Advance in Civilization

The consequences of an advance in civilization are similar to those of an increase in population, namely, rent tends to rise because (1) the improved standard of living requires more expensive varieties of food and clothing, thus increasing the demand for agricultural land; and (2) the demand for land for non-agricultural purposes like parks, play-grounds, etc., also goes up. Rent rises as a consequence.

¹⁰ Thomas, *Elements of Economics*, p. 256.

§ 7. RENT OF BUILDING SITES, MINES AND FISHERIES

Rent of Building Sites

The rent of building sites is determined on the same principles on which the rent of agricultural land is determined. It may, however, be noted that the rent of the agricultural land depends upon its *fertility* and *location*; but in the case of building sites, location alone is important. In the case of buildings for residential purposes, situational advantage consists in the natural beauty, fashionableness, healthfulness, and conveniences of the site in question. The goodness of the site for buildings for business purposes depends upon its attractiveness, frequency and number of customers passing before it, adjoining shops, etc. Thus the rent of building sites, whether for residential or business purposes, is always the *situational rent*.

But this difference does not alter the principle by which rent is determined. At any particular time, there is in existence a no-rent waste land which is useless for building purposes. There are many other sites distinctly superior to it for building purposes. The differential situational advantage of super-marginal building site over the marginal one, is the measure of its economic rent. Rent of building sites is highest in the heart of the city and goes on diminishing as the distance from the centre increases.

Rent of Mines and Quarries

The total payment made for a mine in the shape of rent consists of two parts : (1) Payments made for the minerals removed which are not replaced, called *Royalty*. In agricultural land, it may be noted, no such payment is made for the fertility of the soil which, if properly used, is inexhaustible. (2) Rent Proper, which is paid for differential advantages in respect of ease of working and convenience of situation, called *Mine Rent*.

Royalty has no semblance to agricultural rent; it is, however, the mine rent which resembles it so closely inasmuch as the margin may be lowered *extensively* by the working of less convenient or inferior mines and *intensively* by the application of more resources in the superior mines.¹¹ At any particular time there is a marginal or no-rent mine which is so difficult to be worked and so inconveniently situated that it pays no mine rent. All other super-marginal mines pay rent equal to the differential advantage.¹²

¹¹ Thomas, *op. cit.*, p. 259.

¹² This is Marshall's view. It is difficult to agree with him that royalty is not analogous to agricultural rent. Fertility, unless replaced by certain methods, is definitely exhaustible. And, if so, the analogy between agricultural rent and gross rent of mine is complete. Tausig's unwillingness to accept Marshall's view that even the poorest mine will yield some return to the owner of the mine for the minerals removed, seems to be just from the point of view of theory.

Rent of Fisheries

It is maintained by many economists that with proper care, fisheries yield a perpetual return, as happens in the case of agricultural lands. As such, the analogy between agricultural land and fisheries is perfect and rent of fisheries is determined in the same way as that of agricultural land. No-rent fisheries yield no rent; the differential advantage of all the super-marginal fisheries measures the rent.

§ 8. UNEARNED INCREMENT

The value of land increases if the landlord effects improvements in it. Sometimes, the value goes up due to the operation of certain social factors and without any effort on the part of the landlord. For instance, if town grows up around a plot of land or if it is connected with the surrounding areas by efficient means of transport and communication, the value of land is bound to increase. Such increase in value due to the operation of certain social factors and without any effort on the part of landlord is known as *unearned increment*.

Unearned increment is not the fruit of the labour of the landowner; it is the consequence of certain social causes. As such, it should not be allowed to be enjoyed by the landlord but should be spent for the welfare of the society as a whole through the agency of the State. The government may take away this increment: (1) *through taxation*. An unearned increment in value may be lopped off by the Government by the imposition of a tax: or (2) *through land nationalization*. The entire land may be nationalized, i. e., put in the ownership of the State so that any unearned increment appearing on the land might automatically benefit State finances. This opinion is held by many economists and is particularly advocated by socialists of all shades of opinion.

TEST QUESTIONS

1. Explain the economic meaning of rent and distinguish it from its popular meaning. Can rent arise without a landlord and a tenant?
2. Explain clearly the meaning of economic rent. How does it differ from contract rent?
3. Explain the determination of the contract rent.
4. Explain the Ricardian Theory of Rent in its extensive and intensive forms. Examine the criticism levelled against it.
5. Does rent determine price? Give reasons for your answer. Are there any exceptions?
6. What is the effect on rent of improved transport, agricultural improvement, increase in population and advance in civilisation?

§ 7. RENT OF BUILDING SITES, MINES AND FISHERIES

Rent of Building Sites

The rent of building sites is determined on the same principles on which the rent of agricultural land is determined. It may, however, be noted that the rent of the agricultural land depends upon its *fertility* and *location*; but in the case of building sites, location alone is important. In the case of buildings for residential purposes, situational advantage consists in the natural beauty, fashionableness, healthfulness, and conveniences of the site in question. The goodness of the site for buildings for business purposes depends upon its attractiveness, frequency and number of customers passing before it, adjoining shops, etc. Thus the rent of building sites, whether for residential or business purposes, is always the *situational rent*.

But this difference does not alter the principle by which rent is determined. At any particular time, there is in existence a no-rent waste land which is useless for building purposes. There are many other sites distinctly superior to it for building purposes. The differential situational advantage of super-marginal building site over the marginal one, is the measure of its economic rent. Rent of building sites is highest in the heart of the city and goes on diminishing as the distance from the centre increases.

Rent of Mines and Quarries

The total payment made for a mine in the shape of rent consists of two parts : (1) Payments made for the minerals removed which are not replaced, called *Royalty*. In agricultural land, it may be noted, no such payment is made for the fertility of the soil which, if properly used, is inexhaustible. (2) Rent Proper, which is paid for differential advantages in respect of ease of working and convenience of situation, called *Mine Rent*.

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6. What is the effect on rent of improved transport, agricultural improvement, increase in population and advance in civilisation?

7. Show how the rent of building sites, mines and fisheries is determined.
8. Write short notes on unearned increment, marginal land and contract rent.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. Write a short note on Economic Rent. (1951, 50)
2. Explain the Theory of Rent. With what qualifications is it applicable to India ? (1947)
3. "Rent is not a part of that cost which affects price." Elucidate this statement. (1947)
4. How does rent arise in the case of agricultural lands ? Consider the effect of improvements in agricultural methods on rent. (1946)
5. "Rent is high because price is high but price is not high because rent is high." Explain this statement. (1945)
6. What is meant by Rent, and how is it determined ? Point out the difference between economic rent and contract rent. (1944)

U. P., Int. Com.

7. What is the difference between Economic Rent and Contract Rent ? How can the economic rent of a plot of agricultural land be determined ? (1948)
8. Define Economic Rent. How will the improvements in agricultural methods influence the rent of agricultural land ? (1944, 42)
9. "Rent is high because prices are high but the prices are not high because the rent is high" Justify this statement. (1941)

U. P., Int. Ag.

10. What is Rent ? Differentiate between economic rent and contract rent. How is rent determined ? (1950)

Raj., Int. Arts

11. Define rent and explain how it is determined. (1949)
12. Consider the effect on agricultural rental in a village of improvements of road communication. (1948)
13. Describe the merits and note the drawbacks of Ryotwari System of land tenure. (1948)
14. Would there be economic rent (a) if the tendency to diminishing returns did not exist, (b) if the owners themselves cultivated their lands and did not lease them to tenants (c) if the supply of better quality land were practically unlimited, (d) if the land revenue is abolished ? (1944)
15. Write a note on permanent and temporary settlement. (1944, 1942)
16. Show how economic rent is determined under intensive cultivation ? Does rent of agricultural land tend to equal economic rent in India ? (1943)
17. Explain the causes of rent. Show how the rent is determined by the following factors :—

- (a) Improved methods of cultivation.
- (b) Improved means of transport. (1942)

Raj., Int. Com.

18. What do you understand by Economic Rent ? What is the cause which gives rise to it ? (1947)

19. Write a note on Economic Rent. (1946)

Patna, Int. Arts

20. Define Economic Rent. How is it determined ? (1949A, 1948A, 1947S)

Patna, Int. Com.

21. Write a note on Marginal Land. (1949 S)

22. What do you mean by Rent ? How is it determined ? (1949A, 1947S)

23. Write a note on the Margin of cultivation (1948A)

Banaras, Int. Arts

23A. State, explain and illustrate the Ricardian Theory of Rent. (1946)

Banaras, Int. Com.

24. Explain the Ricardian Theory of Rent. (1948)

25. State, explain and illustrate the Ricardian Theory of Rent. (1946)

Sagar, Int. Arts

26. How is Economic Rent determined ? "Rent does not form part of the expenses of production." Explain. (1949)

27. Write a note on Contract Rent and Economic Rent. (1949)

28. What is economic rent ? How is the economic rent of a country affected by any one of the following :—

(a) Development of Transport facilities.

(b) Increase in Population.

(c) Rise in the Standard of Living. (1949 Supp.)

29. Define and explain Economic Rent. How is it determined under Intensive Cultivation ? (1946)

Sagar, Int. Com.

30. Write a note on Marginal Land. (1950)

31. Write a note on Economic Rent. (1949 Supp.)

32. Define Economic Rent. How is it determined ? Draw diagrams. (1949)

Nagpur, Inter. Arts

33. Explain by means of an example how economic rent under extensive cultivation is determined ? (1949)

34. Explain how economic rent arises in intensive cultivation of land ? Point out the characteristic features of economic rent. (1948)

35. What is economic rent and how does it differ from rent in ordinary sense ? What is rack-renting ? Under what conditions is it possible ? (1947)

Nagpur., Inter. Com.

36. Does rent depend upon the productivity of land ? How far is it justifiable to claim one-half of the agricultural produce as rent ? (1948)

37. What is economic rent and how does it differ from rent in the ordinary sense ? What is rack-renting ? Under what conditions is it possible. (1947)

38. Write a short note on Economic Rent. (1946)

Bombay, Inter. Com.

39. Explain the Ricardian conception of rent and discuss how far it is applicable to the earnings of factors of production other than land. (1948)

Poona, Inter. Arts

40. Explain the nature of economic rent. How is it determined ? (1949)

Poona, Inter. Com.

41. Define Economic Rent. How does it arise ? Does it form a constituent part of price ? (1949)

Andhra, Int. Arts

42. Explain the Ricardian Theory of Rent and examine the relation between rent and price. (1950)

43. "Rent is an unearned increment and hence the state can appropriate it." Comment. (1944)

Travancore, Int.

44. Explain the theory of economic rent. What factors enter into determination of rent in India ? (1943)

Delhi, Higher Secondary

45. Explain the origin and nature of rent, showing its connection with the operation of diminishing returns. (1951)

46. State and criticise the Ricardian Theory of Rent. (1950)

47. What is economic rent ? How is it determined in the case of agricultural land ? (1948)

CHAPTER 61

RENT IN INDIA

While the majority of the Indian cultivators may indeed find it necessary to adhere to the native principles of continuous tenancy, a Government such as ours in India, should offer every facility for changing the tenure to freehold, both because it can be done without loss of revenue and when done and in the process of doing, that change would enlist the willing help of the most numerous and most industrious classes in improving the yield of the land and unite their interest with that of the rulers through whom their possession would be assured.—*James Caird*.

§ 1. APPLICABILITY OF THE RICARDIAN THEORY TO INDIA

The applicability of the Ricardian Theory of Rent to India is sometimes questioned. Indeed, there is a class of Indian economists who appear to believe that the Ricardian Theory does not apply to India. The rent paid by the tenants to their landlords, they say, is not equal to the economic rent as envisaged by Ricardo in his theory: more often than not, it exceeds economic rent because of severe competition amongst cultivators and absence of alternative occupations. Therefore they conclude that his theory is not applicable to India.

This reasoning is ill-conceived and fallacious *ab initio*. Ricardo simply said that the economic rent of a particular land is equal to the excess of its yield over that of the marginal land; and that, under free competition, it will go to the landlords. Now in India there must be some no-rent land. Other super-marginal lands under plough must be yielding heavier produce than the marginal land. Well then, this excess of produce is the economic rent of the super-marginal land. How is the Ricardian Theory inapplicable to Indian conditions? Were free competition to prevail, which is not actually the case, this excess must go to the landlord¹. If the actual or contract rent exceeds economic rent in India, it is due to the fact that free competition does not exist. But such a case falls outside the scope of the Ricardian Theory, as it runs contrary to its assumption. The assumption is to theory what foundation is to a building; if the base of either is removed, vicious results are liable to follow.

§ 2. DETERMINATION OF CONTRACT RENT IN INDIA

Contract rent is, of course, determined in India by demand and

¹As a matter of fact, Ricardo's Theory is a universal truth and applies to all the countries of the world with equal force.

supply. In the interaction of these forces, *custom*, *competition*, *legislation* and *absence of alternative occupations* play prominent parts.

In olden days land was abundant in our country and rents were fairly low. Those were the days of common brotherhood and fellow-feeling; and the bonds of unity were strengthened by the common danger of robbers and thieves. The relationship between landlords and tenants was marked with extreme cordiality, and was crystallised in wholesome *customs* handed down from one generation to the other.

With the advent of the British Rule in India, peace was restored in the country. Economic development went on at a rapid pace. Demand for land increased and landlords began to increase rents beyond the customary limit. In other words, *competition* began to assert itself. The import of individualism along with other western ideals accentuated competition and partially broke down the traditional customs.

The British Rule in India also wrote the death sentence of our handicrafts of diverse types. Having thus lost *alternative occupations*, cultivators began to depend entirely on agriculture. Competition amongst agriculturists increased all the more. They began to pay more than economic rent since they preferred the pursuit of agriculture and semi-starvation to its renunciation and complete starvation.

This sort of rack-renting gravely injured the already delicate economic position of the cultivators. Besides, it checked agricultural improvements; when agriculturists found that an increase in the yield of land as a result of agricultural improvements was unjustly snatched away by landlords, they stopped to spend money, time and energy on the betterment of land and methods of cultivation. To remedy this state of affairs, Government came forward with *tenancy legislation* which aimed at guaranteeing fixity of tenure and fairness of rent to tenants.

At the present moment, custom, competition, absence of alternative occupations and tenancy legislation, exert influence in the determination of the contract rent. Customs are still alive; competition is in the embryo; while alternative occupations are still lacking; hence tenancy legislation is not wholly effective.

§ 3. LAND TENURES IN INDIA

Land Tenures

Three parties are usually connected with land: the *State* which is the supreme landlord, the ultimate owner of all land; *landlords* who have acquired certain specific rights in land and who hold land on certain agreed terms from the State; and *the actual cultivators* who till

the soil and take it from the landlords.² The term "land tenure," which is derived from a Latin word "*teneo*" meaning "to hold," is used to refer to the terms and conditions on which land is held from the Government. Broadly conceived, land tenure refers to the rules and regulations under which one party holds land from the other. In the latter sense, it is divisible into (a) *proprietary tenures*, i. e., the terms and conditions on which landlord holds land from the State, and (b) *cultivating tenures*, i. e., terms and conditions on which land is held by cultivators from landlords.³

The Ideal Land Tenure

The characteristics of an ideal tenure are two : (1) *Fair Rents*. Rents should be fair. If rents are unfair, cultivators will be exploited and agricultural improvements hindered. (2) *Fixity of Tenure*. The cultivator must be sure that the period of his stay on land will be fairly long. Otherwise he will not effect permanent improvements on it lest he is ejected before he could enjoy the fruits of his investment. Not only this: he might even use the land with undue tyranny so as to take the most out of it during his stay, thus exhausting its fertility within a short time: Our land tenure has long fallen short of this ideal. Recently the State has tried to remedy this defect through Tenancy Legislation.

Land Tenures in India

We shall now discuss land tenures in our country. We shall confine our attention to proprietary land tenures only and not to cultivating land tenures which are too widely to be interesting or useful to the beginner. The following are the important *kinds of proprietary land tenures* in India :

(1) *The Zamindari Tenure*. Under this tenure one landlord is made responsible for the payment of the land revenue on the whole estate. The settlement may be fixed once for all, when it is known as *Permanent Settlement*; for instance, in Bengal, Bihar, northern districts of Madras and Banaras division of the U. P., the settlement is permanent and the land revenue payable by the landlord to the State has been fixed once for all. In the alternative, the settlement may be only temporary, subject to revision after a fixed period, when it is called *Temporary Settlement*. Settlements are temporary in such zamindari estates in Bengal which are not under permanent settlement. Settlement with the taluqdars of Oudh is also temporary.

(2) *The Mahalwari or Joint Village Tenure*. According to this system, the Government enters into contract with the co-sharers of

² Sometimes cultivators take land directly from the State as under the Ryotwari system in India.

³ Or from the State as in Ryotwari tracts.

an estate, who become jointly and severally liable for the land revenue. As a matter of fact, the agreement is entered into with the Lambardar or Malguzar who is the representative of the villagers and who becomes directly responsible for the payment. This system is prevalent mostly in Northern India. The settlements under this system are temporary.

(3) *The Ryotwari Tenure*. Under this system the cultivator takes rent directly from the State and pays land revenue straight to the State coffers. No landlord, or middleman, between a cultivator and the State is recognised. This system is mostly prevalent in Southern India, particularly in Bombay, Madras and M. P. It does not exist in the Uttar Pradesh.

Settlements

By settlement of land revenue we mean the determination of the amount of land revenue and the person or persons liable to pay it and the recording of all the private rights and interest in the land. Settlements can be divided according to their duration. Where the land revenue is fixed in perpetuity it is called *Permanent Settlement*: and where it is fixed temporarily, it is called *Temporary Settlement*. In India most of the tracts under zamindari system in Bengal, Bihar, north Madras and Banaras Division are permanently settled. In the rest of India, a temporary settlement is in force.

Permanent settlement was introduced by Lord Cornwallis in 1793, when difficulties in the collection of land revenue were enormous and the permanent nature of the settlement was a great convenience. But it was soon discovered that zamindars extracted as much as they could from the cultivators, but paid only a fixed fraction of their booty to the State. In this way, it inflicted a loss of revenue on the State⁴ and unduly exploited agriculturists. Therefore, it was not extended to other parts of the country.

§ 4. LAND TENURES IN THE UTTAR PRADESH

We shall now study the land tenures in the U. P.

Proprietary Tenures

Of the three types of proprietary land tenures discussed above, the Zamindari and Mahalwari or joint village tenures are found in the Uttar Pradesh.

⁴According to the Bengal Land Revenue Commission, 1940, "the annual loss in this generation resulting from the enactment of the Permanent Settlement may be estimated at anything between 2 crores and 8 crores". (See Chapter 45)

For a thorough and up-to-date discussion of the introduction, financial, administrative, social and economic results, and the suggested improvements in the system of Permanent Settlement, see *Bengal Land Revenue Commission Report, 1940*.

The Zamindari Tenure. The Zamindari tenure in the U. P. exists in two shapes : (1) the Permanent Settlement with the zamindars of the Banaras Division and (2) Temporary Settlements with the Taluqdars of Oudh. The Banaras Division is the only tract in the U. P. having permanent settlement. In 1785, the Britishers were keen on extending the Bengal model of Permanent Settlement and were not familiar with the peculiar system of joint tenure of land in force in the Banaras Division at that time. Therefore, they dealt with one of the chief co-sharers or some other prominent person on a permanent settlement basis.

In Oudh, Government enters into agreement with the taluqdars or chiefs for the payment of land revenue on a temporary basis. The Government takes from the taluqdars the sums collected as rent revenue after deducting the cost of collection and a certain sum for the maintenance of taluqdars according to the pleasure of the Government. The settlement takes place for a period of thirty years. The taluqdar differs from the landlord under permanent settlement inasmuch as the settlement with him is only temporary and he has no absolute right over his estate.

Mahalwari or Joint Village Tenure. Almost the entire province of Agra is under Mahalwari or joint village tenure. The Government enters into an agreement with the co-sharers of an estate or village, by which the latter may become liable, jointly and severally, for the payment of land revenue. Usually the *lambaradar* or *malguzar* enters into the agreement on behalf of the villagers. The settlement is revised after 20 or 30 years.

Cultivating Tenures

After having discussed the terms and conditions on which the middlemen hold lands from the Government, we now come to the description of the terms and conditions on which actual cultivators hold land from the middlemen.

The U. P. Tenancy Act, 1939, recognises the following classes of tenants : (i) Permanent Tenure-holders ; (ii) Fixed-rate Tenants ; (iii) Tenants Holding on Special Terms in Oudh ; (iv) Ex-proprietary Tenants ; (v) Occupancy Tenants ; (vi) Hereditary Tenants ; and (vii) Non-occupancy Tenants.

(1) *Permanent Tenure-Holders.* Permanent tenure-holders are the tenants (i) who have permanent transferable interest in the land, (ii) in a permanently settled district, (iii) under a non-terminable lease, (iv) from the time of permanent settlement, (v) on the same rate of rent, and (vi) are intermediaries between landlord and the actual occupant of the soil. Their rights are heritable and transferable ;

they can sell or mortgage their property. The amount of land revenue payable by them is fixed once for all. Such tenants are mostly found in the districts of Banaras, Ballia, Gorakhpur and Azamgarh which are permanently settled districts.⁵

(2) *Fixed-Rate Tenants.* Fixed-rate tenants are those who hold land (a) in a district which is permanently settled and (b) from the time of permanent settlement and (c) at the same rate of rent. Their rights are heritable and transferable and the rate of rent to be paid by them is fixed for ever. It will thus be seen that fixed-rate tenants have great resemblance with permanent tenure-holders. But the distinction between the two should be noted. A fixed-rate tenant is not a person who is intermediate between the landlord and the actual cultivator, but is the actual occupant himself. A permanent tenure-holder has a permanent transferable interest in the land and his land must not be a terminable one; these conditions do not apply to a fixed-rate tenant. The right of fixed-rate tenant is heritable and transferable and his rent can be enhanced only by the area so far as it is increased by alluvial action or remitted if it is diminished by diluvial action.

(3) *Ex-Proprietary Tenants.* The term 'ex-proprietor' signifies that the present tenant was once the proprietor and his status is now changed, from a proprietor to that of a tenant because he had transferred the whole or part of his *mahal*. He becomes, on such transfer, an ex-proprietary tenant of his *s'r* and such portion of his *khudkash* as has been in his cultivation for over three years. Ex-proprietary tenants pay rent at a reduced rate. Their creation is based on the principle that a person who was once a proprietor in affluent circumstances, should not in bad days become a destitute.

The above three types of tenants enjoy enviable privileges and rights. In the first two cases, the rent is fixed for ever and though the economic rent has mounted up, their commitment has remained unaltered. In the latter case, the concession of reduced rent, which comes to 25 per cent of the usual and actual rent, is also considerable.

(4) *Tenants Holdings on Special Terms in Oudh.* Tenants who hold under special agreement or judicial decision of a date prior to the passing of the Oudh Rent Act, 1886, are tenants holding on special terms. They have all the rights and are subject to the same liabilities as are conferred and imposed upon occupancy tenants in Oudh.

(5) *Occupancy Tenants.* Cultivators who cultivate the same plot of land continuously for a period of twelve years acquire fixity of tenure in that land. They are known as occupancy tenants and

⁵ For a fuller discussion see Rai Bahadur Hari Krishna Prasad, *The United Provinces Tenancy Act* (Kicab Mahal, 1940).

cannot be ejected from the land. Their right is heritable but not transferable. Their rents cannot be increased unless it be by mutual consent or by the order of the court. The enhancement cannot exceed one anna in the rupee and can be made only once in ten years.

(6) *Hereditary Tenants.* The class of hereditary tenants is a creation of the 1939 Act and replaces the old statutory tenants.⁶ Hereditary tenants have been classified under three heads : (a) all persons who were tenants in the U. P. on January 1, 1940, otherwise than as tenants of any of the above five classes ; (b) all persons who after the commencement of this Act are admitted as tenants otherwise than as tenants of *sir* or as sub-tenants ; (c) all those persons who acquire hereditary rights by virtue of the provisions of the new Act. Hereditary tenants are distinguished from occupancy tenants because the rent-rates applicable to them are at a different level from rent-rates applicable to old occupancy tenants. The bulk of this class are those who were statutory tenants or heirs of statutory tenants.

(7) *Non-Occupancy Tenants.* All the other tenants who do not fall in any of the classes mentioned above are called non-occupancy tenants.

Tenancy Legislation

That tenants form the back-bone of the economic prosperity of this country, is the foundation-stone of tenancy legislation of this country. As early as 1789 Sir John Simon had written: "The rent of the land through whatever channel it passes into the public treasury is paid originally by the ryots or immediate cultivators of the soil. Their situation, not only on this score, but as being most hopeless and exposed to oppression, ought naturally to attract the attention and engage the interest of the ruling power." As such, attempts have from time to time been made to regularise the relations between landlords and tenants. The object of tenancy legislation has been a dual one, namely, fairness of rent and security of tenure.

The need for tenancy legislation was, in fact, felt in the U. P. in the last quarter of the 18th century when the Agra Rent Act, 1881 and the Oudh Rent Act, 1886, were passed for Agra and Oudh respectively. The Agra Rent Act, 1881, was amended in 1886, to be replaced by the Tenancy Act of 1901 and later by the

⁶ The Agra Tenancy Act, 1927, had created statutory tenants. According to that Act, all the cultivators who had cultivated a piece of land for one full year could not be ejected from the land so long as they lived provided they paid the rent regularly. The rent could not be increased within a specified period and without sufficient ground. Their successors inherited the right of cultivating the land for five years after their death.

Agra Tenancy Act 1926. The Oudh Rent Act was also subjected to occasional amendments from time to time till the noteworthy amendments in 1921 necessitated entire reshuffling of the Act. The two sister Acts continued till the Congress assumed the reins of the Government and amalgamated them into the United Provinces Tenancy Act of 1939, thus uniting Agra and Oudh for the first time from the legislative point of view.

The chief provisions of the 1939 Act, which intended to give relief to the tenant, are the following : (1) The conversion of most of the tenants into hereditary tenants with the title vested in them to the trees standing on the holding ; (2) the enforcement of very strict discipline on the landholders in the matter of collection of rent from the tenants throwing the burden, almost in every case, in which the fact of payment of the amount paid is contested, on the landlords ; (3) the provision for punishment of landlords in the event of non-compliance with the provisions of the Act intended to safeguard the interest of tenants ; (4) the total abolition of execution of decree for arrears of rent against the person of the tenant, *i.e.*, by his arrest or detention ; (5) the wiping off of all arrears of rent due on the date of ejection of a tenant ; (6) the abolition of remedy by distraint ; (7) the reinstatement of an ejected tenant.⁷

§ 5. THE ABOLITION OF THE ZAMINDARI SYSTEM

From the above survey of the land tenure system in India, it should be clear to the reader that the land which cultivators cultivate does not belong to them. It is owned by the Government. Cultivators have to hire their fields for carrying on cultivation in return of a rent. Sometimes the Government gives land directly to cultivators as under Mahalwari or Ryotwari Systems, which is a very good system : since the Government is always interested in the welfare of her people, it will see that interests of cultivators are duly protected. But under the Zamindari System, the Government gives land to a zamindar ; and the Zamindar gives land to cultivators. The Zamindar collects rent from cultivators ; and of the total rent thus collected, he has to pay about 50% to the Government. Under the Zamindari System, the interests of cultivators are not protected. As a matter of fact, the Zamindar abuses his position in the village to exploit cultivators who are generally poor and ignorant. Such an exploitation is not only a great hardship to poor cultivators ; but it also impedes the progress of agriculture in India. Efforts were made by the Government to improve the lot of cultivators in Zamindari areas by passing tenancy legislation ; but these efforts failed. As

⁷ Mittal, *Lectures on Tenancy Law*.

such, it is felt that unless the Zamindari System is abolished, neither our cultivators can become men of some means nor can Indian agriculture develop and flourish.

Defects of Zamindari System. (i) The Zamindar charges very high rent from cultivators but gives to the Government even less than 50% of his collections. He thus exploits both, the people and the Government. (ii) Many zamindars do not keep proper accounts and even collect rent from the same cultivator more than once during the same period. (iii) The Zamindar in many cases reserves several rights for himself; and sometimes the cultivator is reduced to the status of a slave. For instance, in some places the cultivator cannot even marry his son and daughter without the permission of Zamindar and without paying a tax to him. (iv) The Zamindar is always keen to object an existing tenant so that he can give his land to some other tenant and charge a nice lump sum from him as *Nazrana*. (v) Under these circumstances the cultivator has hardly any incentive for improving the quality of land or for improving the produce from land. He is afraid that if he produces more, the Zamindar might take away most of the fruits of his labour.

Zamindari Abolition. Because of such evils of the Zamindari System, the Indian National Congress favoured its abolition. After India became free and Congress formed Ministries in the States and at the Centre, steps were taken in seven states to abolish this system. These states are U. P., Madras, Madhya Pradesh, Bihar, West Bengal, Orissa and Assam. Under the various schemes prepared in these states, the Zamindar will lose his status as an intermediary for collecting land revenue; and will in return get some compensation. The average amount of compensation is the lowest in Madras, only Rs. 9 per acre; whereas it is highest in Bihar, Rs. 38 per acre. In U. P., it comes to Rs. 27 per acre. It is hoped that the abolition of the Zamindari System will give some relief and a new outlook of hope and progress to cultivators.

Zamindari Abolition in U. P.

In U. P., two Acts have been passed in connexion with the abolition of the Zamindari system. They are the Zamindari Abolition and Land Reforms Act of 1950 and the Agricultural Tenants (Acquisition of Privileges) Act, 1949. The object of the latter is to abolish the zamindari system; and of the former, to collect voluntary contributions from tenants to the Zamindari Abolition Fund (Z. A. F.) which will be used to pay compensation to Zamindars. Cultivators were given the right to make voluntary contributions to the Z. A. F. equal to ten times their annual rent. By making such contributions, tenants became *bhumidhars*. Bhumidhars are entitled to transferable rights in their holdings and pay as land revenue only 50% of their existing rent. Those tenants who

have not made such a contribution to Z.A.F., are called *sirdars*. They have a permanent and heritable interest in their holdings but they cannot use them for any purpose other than agriculture, horticulture or animal husbandry. There will be now new settlement for the next 40 years. In future settlements, the revenue payable by a *bhumidhar* would not exceed one-half of that payable by a *sirdar*. The total area involved in U. P. is 52½ lakh acres; and the total amount of compensation to be paid to Zamindars comes to Rs. 140 crores. Ten times the rental demand would amount to Rs. 174 crores. Even if 4/5ths of tenants contribute to Z. A. F., the total compensation would be paid off from this Fund.

TEST QUESTIONS

1. Is Ricardian Theory of rent applicable to India? Is the difference between contract rent and economic rent in India of any bearing on this applicability?
2. What are the factors which enter into the determination of contract rent in this country?
3. Write an essay on the Land Tenures and Settlements in India.
4. Explain the proprietary tenures in existence in U. P.
5. What are the classes of tenants to be found in U. P., according to the U. P. Tenancy Act, 1939?
6. What are the objects of tenancy legislation? Give the history of tenancy legislation in the U. P. and lay down the main provisions of the 1939 Act.

EXAMINATION QUESTIONS

U. P., Int. Arts

1. Mention the conditions for an ideal system of land tenure.
How far does the existing system of tenancy or the future system of *Bhumidhari*, secure those ideal conditions? (1950)
2. Write a short note on Zamindari System. (1949)
3. What do you understand by Land-Tenure? Mention the salient features of the existing system of land tenure in U. P. (1948)
4. What steps have been taken by the U. P. Government to safeguard the interests of tenants within recent times. (1942)

Raj., Int. Arts

5. What are the chief defects of Zamindari System? What measures have been suggested to remove them? Discuss fully. (1949)
6. Describe the merits and demerits of the ryotwari system of land tenure. (1948)
7. Discuss the demerits and merits of permanent settlement of land revenue in India. (1941)

Punjab, Inter.

8. Describe the methods of land revenue assessment in different parts of India. (1948)

Delhi, Higher Secondary

9. State how the abolition of the zamindari is likely to affect Indian agriculture. (1950)

CHAPTER 62

WAGES

It is not to be understood that the natural price of labour estimated in food and necessities is absolutely fixed and constant.....It essentially depends on the habits and customs of the people.—Ricardo.

§ I. INTRODUCTION

Meaning of Wages

A wage is a price; it is the paid price by the employer to the worker for the labour performed by him (*i. e.*, the worker). It may, as such, be defined as the price paid by an entrepreneur to the labourers employed for productive purposes. It may also be defined the share of the national dividend which accrues to labour (in the broad sense of the term, including all kinds of workers whether they receive salaries, pays, or wages; whether they are paid annually, monthly, weekly or daily; whether they are skilled or unskilled; whether their work is manual or mental).¹

Two Doubtful Cases

There are two doubtful categories of labourers whose remuneration is called wages by some and excluded from this class of income by others. The first is the case of those entrepreneurs who take part in superintendence and management of an undertaking. In so far as they themselves superintend and manage the business, they work as organisers and are entitled to a salary. For if they do not themselves do this work, they will have to employ an organiser and pay him a reward. Therefore, any payment made to them directly or indirectly, is obviously of the nature of wages. The second class is constituted by independent workers like teachers, doctors and lawyers. They undergo some physical or mental exertion and receive a reward for their labour, usually called fee. Some economists are of the opinion that this remuneration should be put under wages. But others do not agree with this opinion because the services rendered by these persons are sold to consumers directly, and not to producers as is the case with labour; hence their reward is usually classed by them under profits and

¹Labour is a wealth creating effort.—J. B. Clark. (*Essentials of Economic Theory*, p. 9), Any human exertion directed primarily toward the creation of utility, is labour. Although the work of a child at school may create "productive power", the immediate end not being production, it is not economic labour. "The remuneration of labour," (Seligman *Principles of Economics*, p. 411), "the earnings assigned to men for their work" (Seager, *Introduction to Economics*, p. 222), in other words, the recompense of human exertion in the production of utility, is wages.—F. H. Streightoff, *The Distribution of Incomes in the United States*.

falls outside the scope of wages. But this distinction is rather superficial. Their reward should also be treated as wages.

Wage, Pay and Salary

The remuneration given to labourers is known by different names according to their status and the time of its payment. The remuneration paid daily, weekly or fortnightly is called *wage*; that paid monthly is known as *pay*; while that paid yearly is called, *salary*.² There is no technical difference in the nature of wages, pays and salaries, all being the earnings of labourers. But from the point of view of social status and prestige of labourers, this distinction is very important. Wages are usually given to ordinary, unskilled labourers who live from hand to mouth and who belong to the lower status of society. Pay is given to middle class persons like teachers, clerks, organizers and ordinary officials who hold a higher social status than the wage earners. Salaries are given to high Government dignitaries and well-paid organizers who constitute rich section of the society. Wages are less than pays and pays are less than salaries. The differences in these incomes are wide in the present-day capitalistic economy. These inequalities have given rise to much hard thinking and a movement, aiming at levelling up incomes as much as possible, has been started under the name of Socialism.³

The Problem of Wages

Of all the branches of Economics, Distribution is the most difficult and the most important section; and of all the problems of Distribution, the problem of wages is the most difficult and the most important problem. It is the most difficult because labour being inseparable from labourer, the human element enters into consideration more definitely at this stage than in any other phase our enquiry; and the interference of non-economic elements with the operation of the economic ones has always to be faced with. It is the most important problem of our investigation because it concerns the class of society which has the greatest

²See Benham, *Economics*, page 17; Batson, *Practical Economics*, page 48. In this context the term *wage* has been used in the narrow sense. In the broad sense, in which it is generally used, it includes all the three types of remuneration mentioned here.

³The question of inequality of incomes is very important and may be studied from a number of elementary books like Clay, *Economics for the General Reader*, Batson, *Practical Economics*, etc. The following is an explanation of the inequality of wages. Wages depend on productivity, and productivity depends on ability, training and equipment in the widest sense. Ability varies; training is too expensive for the poorest workers, so that the difference between skilled and unskilled wages is not wiped out by a flow of labour from unskilled to skilled occupations; and the comparative efficiency of equipment as between industries is constantly varying; while mobility between industries and places is checked by ignorance, inertia and the fear of losing the advantages of specialized skill—Scott, *The Approach to Economics*, pp. 125—130.

numerical strength and which, generally speaking, is most dissatisfied with the present-day economic organization of society.

§ 2. DETERMINATION OF WAGES

Wage, we have said, is the price of labour. We have now to discuss how the price of labour is determined. The price of an ordinary commodity is determined by of demand and supply. If labour be regarded as a commodity, the same theory of value will apply to wages as well. But labour differs from an ordinary commodity in several respects which necessitate modifications in the general theory of value when applied to wages.

Peculiarities of Labour

The following are the peculiarities of labour as a factor of production.

(1) *The Worker Sells his Work, but Retains Property in Himself.* The first peculiarity of labour is that labourers are not bought and sold as machinery and other material agents of production. The worker sells his work or labour power for a definite number of hours for an agreed wage, but he does not sell himself. There was a time when a worker could even sell himself. The purchased worker was called a *slave*. But slavery has now been abolished from every country of the world. In this respect, labour differs from land or capital; for both land and capital can be bought but labourer himself cannot be bought—only his labour power can be purchased.⁴

4 This fact stands in the way of education and training of workers. Money can be spent on their education either by themselves or by employers. They themselves cannot afford to do so on account of their poverty except in isolated cases. Their inability to look sufficiently ahead and to realise the importance of sacrificing the present pleasure for the welfare of their children, is another obstacle. The employer does not also like to spend money on the education of workers because by so doing he cannot own workers—workers after education would be their own masters and would be free to work for any employer. As against this, if an employer spends money on buildings, machinery, etc., he can reap full benefit of such an expenditure as these things are his property. As Marshall aptly observes: Those who bear the expenses of rearing and educating the worker receive but very little of the price that is paid for his services in latter years. As such the investment of capital in the rearing and early training of the workers is limited by the resources of parents, by their power of forecasting the future and by their willingness to sacrifice themselves for the sake of their children. The evil is of little importance in the higher industrial grades. For in those grades, most people distinctly realize the future; they exert themselves much to select the best careers for their sons; and they are able and willing to incur a considerable expense for the purpose. But in the lower ranks of society the evil is, indeed, great. For the slender means and education of the parents and the comparative weakness of their power of distinctly realizing the future disable them from investing much capital in the education and training of their children. Unfortunately this evil is cumulative. The worse fed are the children of one generation, the less will they earn when they grow up, and the less will be their power of providing adequately for the material wants of their children, while, the less fully their own faculties are developed, the less will they realise the importance of developing best faculties of their children.—Marshall, *Principles of Economics*, VI. iv. 2.

(2) *Labour Cannot be Separated from the Labourer.* The labourer has, therefore, to present himself at the place where labour is required. This is not the case with other factor of production. Land can be separated from the landlord; capital, from the capitalist. Landlords and capitalists can remain in their homes, but their land and capital can be used thousands of miles away. But labourer must go where labour is to be supplied. Due to the inseparability of labourers from labour, various personal factors affecting the former affect the supply of labour; and have to be considered when discussing wages—a fact which makes the problem of wages a hard nut to crack. For instance, labour is not so mobile as say capital, because its mobility depends upon the mobility of the labourer, which is hindered by a long list of personal considerations like love of home attachment to associates, etc. These personal obstacles are, of course, absent in the case of other factors of production.

(3) *Labour Power is Very Perishable.* If a merchant does not sell his commodity today, he hopes to be able to sell it tomorrow. But if a labourer does not work on any particular day, the labour power of that day perishes for ever and cannot be regained. Due to this fact, labourers prefer to sell their labour power at any price on any particular day rather than wait and let it perish irrevocably. The consequence is that the bargaining capacity of labourers is weakened and wages are depressed.

(4) *The Supply of Labour Increases and Decreases Very Slowly.* If the demand for an ordinary commodity increases, its price rises and it begins to be produced in increasing quantity. This is not so with labour. If the demand for any particular type of labour increases, its supply can increase in the following two ways: (a) Parents may train their children for that work. This will take considerable time and the supply will increase only slowly. (b) Labourers from other channels may be attracted towards this line by the offer of high wages. This latter alternative is not free from difficulties. The mobility of labour is a difficult process and cannot be relied upon as a quick measure. Moreover, the mobility might only shift the problem of the scarcity of labour from one grade or industry to another grade or industry.

What is true of an increase in the supply of labour is also true of a decrease in its supply. Labour of any particular grade or industry can decrease through natural death of labourers, or its mobility to other grades or industry. The first one takes time and the second one is unreliable, besides being slow.

We conclude, therefore, that the supply of labour adjusts itself to changes in demand only slowly.

(5) *The Bargaining Capacity of Labourers is Weaker than that of Employers.* The rate of wages is determined by the bargain made

between the employer and the labourer. Each is *supposed* to be perfectly free to consider his own economic interest, though as a matter of fact nearly always in the course of the world's history the master has had the advantage and the workman has been less free to strike his bargain. This is due to a variety of reasons: (a) Labour power, as we have seen, is perishable. The labourer prefers to sell his labour power for any price whatsoever rather than to remain idle and lose it for ever. (b) Labourers are generally poor and have no resources to fall back upon, if they like to wait in the higgling and bargaining with the employers. They live from hand to mouth; and in order to earn their bread for tomorrow, they must work today at any remuneration whatsoever. Employers know it thoroughly well and make its unscrupulous use to their own advantage. (c) In the olden days if labourers could not get employment, they could themselves produce goods and sell them in the market. But most of these handicrafts have now decayed in the face of the competition of factory goods. The bargaining capacity of labourers has been considerably weakened. (d) Labourers lack organisation. Trade unions, such as they are, are little developed, include only skilled labourers and suffer from many defects and obstacles. Hence they do not always offer an effective resistance against the exploitation by employers. (e) Sometimes wages are paid according to some old-established custom and are fairly low. Since custom does not easily change, wages do not easily increase. (f) Even if there are chances of getting high wages at some particular occupation, labourers do not get the information. Their ignorance is a great obstacle in the way of high wages. (g) Finally, a rapid rise of population is creating a class of the unemployed of increasing dimensions, which is a fruitful cause low wages.

The Theory of Wages

The modern theory of wages is substantially the same as theory of value, subject to certain reservations necessitated by the peculiar characteristics of labour discussed above. According to this theory, wages are determined by the inter-action of the forces of the demand for labour and its supply.⁵

The Demand for Labour. Labour is demanded by employers who use labourers in the act of production. A labourer is engaged for producing goods (or value); and whatever contribution he makes to total output or production is called his *productivity*. This productivity can be measured in terms of money. It has been found by experience

⁵The explanation of price by Supply and Demand also holds good for labour, which is certainly a commodity although it is supplied and sold in a special way. The price of labour is not, of course, the same thing as the earnings of labourers. A person's earnings depend partly on the price of his labour and partly on the quality of it that he sells."—Batson, *Practical Economics*, p. 27.

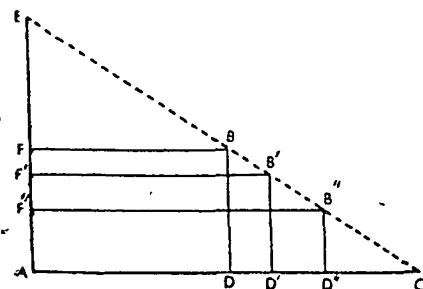
that the productivity of every successive or additional labourer goes on declining as more and more labour is employed, provided the quantity of other factors is not changed. The productivity of labour thus resembles the utility of a commodity, which also diminishes with an increase in its supply.⁶ Now, when an employer considers whether or not he should employ one more labourer, he compares the productivity of the additional worker with the wage he will have to pay him. If his productivity exceeds the wage, he will employ the worker. He will go on employing labourers till the productivity of each additional labourer exceeds the wages paid to him. In course of time a point will be reached where the productivity of the last or the marginal labourer employed just equals the wages he is paid. Such a worker is on the *margin* of employment or dismissal: he contributes as much to production as he gets in the shape of wages; and the employer is, therefore, indifferent whether he is employed or not. He is, therefore, called the *marginal* or *final* worker, and will be the last worker employed by the employer. The productivity of the marginal or final worker is known as *marginal* or *final productivity*.

It is thus clear that the wage which the employer will be prepared to pay to the marginal labourer will be equal to the marginal productivity. It cannot exceed marginal productivity since the employer will suffer a loss in that case.

Now, when we are considering a great body of labourers, we may safely assume that all the members of the group are equally efficient and each is interchangeable with the other. Consequently, the same wage will be paid to each of them. This will be the wage which is paid to the marginal labourer. Since the wage paid to marginal labourer is equal to the marginal productivity, it follows that the marginal productivity sets the demand price for labour.

6 Measurement of Marginal Productivity. Marginal productivity of labour can be measured in terms of money by finding out the increase in the income of a firm if one more labourer is employed. For instance, suppose a mill, employing 1000 workers, engages one more worker (i.e., 1001 in all) while keeping others produc-

tive resources fixed; and its income rises by Rs. 30. Then the marginal productivity of labour will be Rs. 30. This marginal productivity goes on declining with the employment of every additional hand, as has been clearly shown in the adjoining diagram. BC is the marginal productivity curve; and its downward slopes represents its consistent fall with the employment of additional labour. AC represents number of workers employed and AB represents productivity in terms of money. When AD labour is employed, marginal productivity is BD. But if labour employed is increased to AD', the marginal productivity is reduced to B'D'. If labour employed increases to AC marginal productivity will fall to zero.



The Supply of Labour. Just as the employer (or buyer of labour) has maximum, similarly the labourer (or seller of labour) has his minimum. The labourer's minimum limit is set by his standard of living, *i. e.*, the amount of necessities, comforts and luxuries which he has become accustomed to enjoy and which he will insist upon having. Wages must at least be equal to the cost of his standard of living: the labourer will not accept a wage which is lower than the cost of living. If lower wages are offered in spite of the resistance of workers, they will seek to maintain it by such methods as deliberate postponement of marriage or life-long celibacy, mobility to other trades or localities where higher wages are obtainable, acquisition of greater efficiency or combination of workers and refusal to work at all except at adequate wages as determined by their standard of living. Such devices will push up the wage to the cost of living in course of time. The standard of living of the worker thus sets the minimum limit below which wages cannot fall.⁷

Inter-action of Demand and Supply. Between these two limits, the maximum limit as set by the marginal productivity of labour and the minimum limit as set by the cost of living of workers, wages are determined by the relative bargaining strength of labourers and employers. In actual practice, the bargaining strength of a labourer is very weak. Wages, therefore, tend to approximate the cost of living rather than the marginal productivity.⁸

Old Theories of Wages

The above theory of wages is known as the Modern Theory or the Demand and Supply Theory of Wages. Economists in the past had propounded a number of theories of wages the most important of which are (1) the Subsistence Theory or the Iron Law of Wages; (2) the Wages Fund Theory; (3) the Residual Claimant Theory, and (4) the Marginal Productivity Theory. All these theories have now been discarded and the modern theory claims the

⁷ The standard of life in the case of labour replaces the *expenses* of production in the case of ordinary commodities, but it will be appreciated that the standard of life is in many respects analogous to the *cost* of production of a commodity, because the standard of life is a measurement of sacrifice made by the worker in order to bring up the family, *i. e.*, in order to increase the future supply of workers.—Thomas, *Elements of Economics*, p. 277.

⁸ In the case of an ordinary commodity, the long period-price approximates expenses of production; and short-period price, the marginal utility. Similarly, some economists assert that wages tend to approximate, standard of living in the long period and marginal productivity in the short period. This view appears to me far from accurate. In the case of a commodity there is the assumption that the bargaining strength of both the parties is equal. But such an assumption will be out of place in the case of labour. Hence the analogy pursued by the advocate of the above view seems to be unwarranted.

largest number of adherents. But even this theory is not free from defects and we have yet to wait for an economist who can solve this riddle.

§ 3. WAGES, EFFICIENCY AND STANDARD OF LIVING

Wages and standard of living are closely connected with each other and act and react upon one another through the medium of the efficiency of labourers.

(a) Let us begin with *the standard of living*. Suppose the standard of living of workers goes up. They will now be able to satisfy their wants more richly, both qualitatively and quantitatively. Their efficiency, physical and intellectual, will increase. An increase in efficiency necessarily means an increase in productivity. The maximum limit up to which wages can go will thus increase. Again, standard of living determines the minimum below which wages cannot go. As such, a rise in standard of living also implies an increase in the minimum rate of wages. The maximum and minimum limits having thus gone up, wages are likely to increase.

If the standard of living goes down, opposite results will follow. Efficiency of labourers will go down. Their productivity will decrease. The maximum limit up to which wages can rise, will go down. The minimum limit up to which wages can fall, will also decrease since it is the standard of living which determines this minimum, other things remaining the same. When the maximum and minimum limits are pushed down, wages are likely to be depressed.

(b) Let us now look at the relationship *from the standpoint of wages*. If wages go up, labourers will be able to satisfy their wants more richly and their efficiency will rise. Their productivity will also increase. The maximum limit of wages will thus go up. At the same time, higher wages imply higher standard of living which pushes up the minimum limit of wages. The minimum and maximum having thus increased, wages are sure to spring up.

If wages fall, opposite results will follow. Efficiency will go down; productivity will fall as a consequence. Maximum limit of wages will thus be pulled down. At the same time, standard of living will decrease and the minimum limit will be depressed. Wages will, therefore, fall.

(c) We shall now consider the case *from the point of view of efficiency*. If somehow labourers increase their efficiency, their productivity will go up. Their wages will rise as a consequence. And they will increase their standard of living. The results following in the case of a fall in the efficiency are just the reverse.

From the above discussion two conclusions emerge. Firstly, labourers can increase their standard of living by making themselves more efficient, other things remaining the same. Secondly, the influence of a change in standard of living, or efficiency, or wages, is



Fig. 66. Showing the relationships between standard of living, efficiency and wages.

cumulative. If, say, efficiency increases, wages will increase. They will push up the standard of living. It, in its turn, will increase efficiency further. The circle thus got going will continue to run incessantly.⁹

§ 4. REAL AND NOMINAL WAGES

Meaning

In modern times, labourers are generally paid in money. Wages paid in terms of money are known as *Money or Nominal Wages*¹⁰.

The labourer does not value money for its own sake. What is of *real* importance to him are the necessities, comforts and luxuries which he can purchase with the money wages he receives. Again, he also attaches substantial importance to other kinds of payments, concessions and incidental advantages which he gets in addition to money wages. For instance, a domestic servant may get free lodging, old clothes and shoes, *inam* on festivals, and free trips with his master.

⁹ See A. C. Pigou, *Economics of Welfare*. It has been assumed in this discussion that the expenditure of the labourer will be wise. If wages increase, the standard of living and with it the efficiency, it has been assumed, will go up. It is true that at times labourers indulge in foolish expenditure as well. The best way to check it is (1) to increase wages in some veiled form, as for example, giving them A quality wheat at the price of B quality, or (2) to make this increment very gradual. This increase should of course be accompanied with a propaganda in favour of wise expenditure.

¹⁰ Some writers define money wages as wages expressed in terms of money. This language is faulty leading to fallacious concept. If the entire real wages are evaluated or expressed in money, they will not probably be called money wages. The point is debatable, any way.

A mill worker may similarly obtain mill products at concession rates, free reading room, free games, etc. *The necessities, comforts and luxuries which can be purchased with the money wages or other kinds of payment, together with concessions and advantages incidental to the service, constitute the real wages.*¹¹

Nominal wages are expressed in money while real wages are reckoned in commodities and services. Labourers are not so much concerned with money wages as with real wages. Wages in a village may be only Rs. 5 per month and those in a town, Rs. 7 per month; but the prices in the town may be much higher than those in villages, so that the real wages in the village may be higher than those in the town. When a labourer has to choose between two services, he takes into account not the money wages but the real wages. It is, therefore, important to know what considerations enable us to assess the real wages.

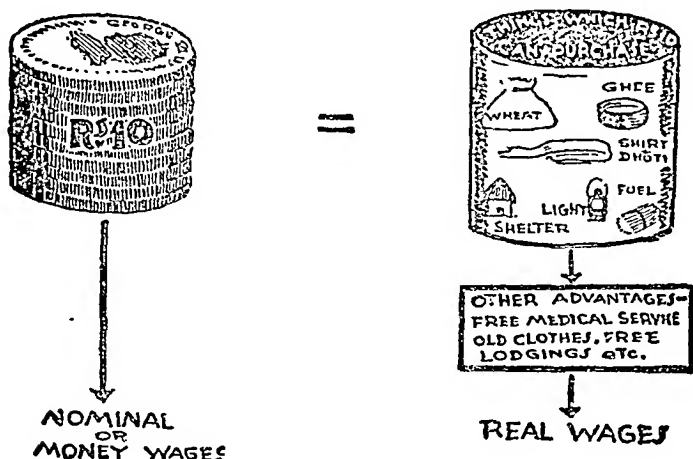


Fig. 67. Illustrating nominal and real wages.

Factors Effecting Real Wages

The Purchasing Power of Money. The most important factor determining real wages is the purchasing power of money. At some place general prices are very low so that the purchasing power of money is fairly high; at others, on the contrary, prices are very high so that the purchasing power of money is very low. If the wages

¹¹ Money wages refer to the contents of the pay envelope, to the number of dollars the wage-earner receives. By real wages is meant not the number of dollars, but the amount of purchasing power received.—J. R. Turner, *Introduction to Economics*, p. 458.

are, more or less, the same at all such places, labourers will prefer the former class of localities to the latter. For instance, in a village agricultural commodities, which are the things mostly entering into the consumption of labourers, are cheap; in a neighbouring town, like Allahabad, they are higher; while in a thickly populated industrial town, like Bombay and Calcutta, they are higher still. This is an important reason why wages are generally low in villages, high in neighbouring towns and highest in the industrial centres.¹²

(2) *Incidental Advantages.* Besides money wages, workers may enjoy various concessions and privileges. Agricultural labourers get cheap or free milk, *mattha*, and cottage. The manager of a bank gets a free bungalow. Teachers and Government servants receive provident fund or pensions. Railway servants get free travelling tickets. All such incidental advantages determine real wages.

(3) *Period and Cost of Training.* Real wages also depend upon the period and cost of the training received by the labourer. There are some unskilled occupations which require no training whatsoever; for example, the digging of earth or the lifting of bricks. Anybody can become an unskilled labourer without any training. There are other occupations which require some training involving little expense and time, e.g., the work of motor-driving. There are still other occupations requiring fairly lengthy period of expensive training, e.g. medical profession. These considerations must be taken into account in finding out real wages. If a motor driver gets Rs. 30 per month and a graduate teacher Rs. 35 per month, the real wages of the latter are definitely lower than those of the former.

(4) *Trade Expenses.* In the course of carrying on one's occupation, one has sometimes to incur certain expenses. For instance, a college professor has to engage a conveyance for going to the college and to spend money on books and magazines. A lawyer, similarly, has to have a conveyance, keep a clerk and pay to the lawyer's association. All such trade expenses must be deducted from money wages in order to find out the real wages accurately.

(5) *The Nature of Employment.* Besides trade expenses, the nature of the work is also important. Some occupations are very exhausting (e.g., black-smithy) and reduce the working life of the labourers. Others are dangerous (e.g., lead-working) and shorten the earning period. Then there are some occupations which are definitely dirty and abhorring, e.g., the work of a sweeper or of a butcher. All such factors must be taken into account while determining real wages. As compared to such occupations, there are other lines of work

¹² If nominal wages are the same at different periods, real wages are highest at that period when prices are lowest—Crew, *Economics for Commercial Students*, p. 93.

which are definitely pleasant and afford much happiness, *e. g.*, the work of a teacher or of an artist. This pleasantness increases real wages just as exhaustiveness, danger and dirtiness decrease it.

(6) *The Length of the Working Day.* Besides the nature of the occupation, the number of hours worked per day and the number of holidays also affect real wages. The difference becomes important when we compare the case of a bank manager who has to go to his bank at 9 A. M. and come back at 6 or 7 P. M., with few holidays, with a college professor who has to take only four periods per week and gets substantial holidays.

(7) *The Regularity of Employment.* The regularity of the employment is also an important consideration. Some occupations are merely temporary; for instance, a carpenter may be employed at a particular place for a week or so but thereafter he may be dismissed and may remain unemployed for a fairly long period. Similarly sugar factories work only during winter and almost the entire staff is suspended during the off-season. The irregularity of employment reduces real wages.

(8) *Extra Earnings.* The real wages of an occupation also depend upon the possibility of supplementing the income through other sources. For instance, a bank clerk may work as an insurance agent in extra time. A lecturer may become an examiner, write books or take private tuitions. Such opportunities enhance real wages.

(9) *Employment to Dependants.* The real wages increase still further if opportunities of employment of the various members of the family of the employed are great. In some of the industrial centres, the grown-up boys and wives of labourers can easily find work, while in some other places the advantage is not available.

(10) *Prospect of Success.* Real wages are also affected by the possibility of getting a lift or receiving higher wages in future. One may refuse a job promising high wages in the beginning but no rise later on, in preference to another job offering low wages in the initial stages but with fair chances of promotion later on.

The high purchasing power of money, large incidental advantages, small period and cost of training, little trade expenses, light and pleasant character of occupation, short working days, regularity of employment, extra earnings, employment to dependants and prospects of success, increase real wages; while their absence decreases it.

§ 5. NOMINAL AND REAL COST OF LABOUR

Just as labourers discriminate between one occupation and another by comparing nominal and real wages, similarly employers discriminate between one labourer and another by comparing nominal

and real cost of the worker. The wages paid to a labourer constitute his nominal or money cost to the employer, while his productivity gives his real cost. If two spinners are employed at 8 annas per day and one spins 800 yards of yarn while another spins only 400 yards, the nominal cost of both is the same but the real cost of the first labourer is just half of that of the former.

High Wages are Cheap Wages

The prevailing notion amongst many Indian employers is that it is economical to employ a low-paid man. But the policy of depressing the labourer's standard of living through low wages, is not in the best interests of the employers. American labour is in many industries the cheapest labour in the world because it is the best paid. High wages make possible a high standard of living. The high standard makes the labour intelligent, hopeful and full of character as well as more efficient physically. The increase in efficiency is, up to a point, more than proportionate to an increase in wages. Let us take an illustration. If the employer gives twelve annas a day to the labourer who spins 400 yards a day and eighteen annas to him who spins 800 yards daily, then seeing the wages alone, the former is the cheaper man; but in fact, the latter is more economical. The cost of spinning per hundred yards of yarn in the

case of the first labourer is $\frac{12 \times 100}{400} = 3$ annas; while in the latter case

it is only $\frac{18 \times 100}{800} = 2$ annas 3 pies. Thus money cost (or wages)

may be high but real labour cost may be low.

Low Wages are Dear Wages

In the above example, the cost of labour is higher in the case of the worker who receives low wages. Low wages are, therefore, dear wages. Employers have now begun to realise that low wages are not economical or profitable to them. If the wages are very low, the standard of living of the worker is unduly depressed and his productivity decreases more than proportionately. Intelligent employers now aim at paying "efficiency wages" which might be sufficient to keep the labourers efficient and their productivity high.¹³

¹³Cheap labourer is very likely to be inefficient while a good man, as the saying goes, is always worth his wages. The real value of labour to the employer depends entirely on its efficiency. If by giving his men shorter hours, better wages or better conditions of labour in any way, an employer finds that their efficiency is increased, then he may find it to his interest to do so. The increased product due to the greater efficiency of their labour may more than recompense the employer for the extra wages paid. This argument is the real justification for the efforts of trade unions to improve the position of the working man—Todd, *Felicitical Economy for Egyptian Students*, p. 64.

Long Hours are Unprofitable

Some employers have the wrong notion that if they can make labourers work for long periods, they will be able to extract from them more work and their cost of production will go down. In fact, unduly low periods of work use up the vitality of the labourer so rapidly that his efficiency decreases more than proportionately with the result that he becomes costly. It has been found by experiment that if the number of hours are reduced *up to a certain point* labourers produce more during the short time that they work than what they formerly did in the long period. Of course, if the working hours are reduced beyond that point, productivity will certainly go down.

§ 6. METHODS OF WAGES PAYMENT

The method of the payment of wages is as important as the amount paid. If the method of wage payment is defective, even high nominal wages may not be very real advantage to labourers. There are two important methods of paying wages. The most frequent and important is the payment of *time wages*, i. e., wages paid according to a unit of time—daily, weekly, monthly or annually. This method is not found most suitable in all cases and wages are sometimes paid according to the unit or piece of work completed by him. The wages paid according to the latter method are known as *piece wages*. We shall discuss below the advantages and disadvantages of each of them.

Advantages and Disadvantages of Time Wages

The great merits of time wages can be appreciated by the fact that this system is most extensively used. The system of time wages ensures *regularity of employment*. If the labourer falls ill for a few days, or if the factory stops working due to the breakdown of machinery or shortage of raw materials, no deduction is made from the salary of a labourer paid on, say, monthly basis. Again, it *preserves the physique of workers* by giving them no urge for over-straining themselves and thus ruining their health. Where *delicacy and perfection of workmanship* are paramount considerations, this is the best method of wage payment since it gives no stimulus to hurried or "scamped" work. Moreover, where the amount of *work cannot be measured*, e. g., the work of a supervisor or manager, this system is best of all.

The system of time wages has many short-comings as well. Its one great defect is that it does not give any incentive to labourers for working more efficiently. On the other hand, they are sure of a definite remuneration and as such become slack. For this reason, proper supervision has to be kept over

them, which increases the overhead charges. Again, this system makes the discrimination between an efficient and an inefficient worker difficult. Efficient workers are paid less in proportion to their efficiency, as compared to inefficient workers.

Advantages and Disadvantages of Piece Wages

This system is fair and just. The wage-earner receives remuneration for the actual work he does. The employer also gets full return for the wages he gives. Secondly, the greater is the quantity of work done by a labourer, the more are his earnings. Under this system, then, there is an urge to increase production; each good worker gets more than what he could get as time wage; and efficiency is automatically rewarded and inefficiency punished. The cost of supervision is also reduced to the minimum.

This system, however, suffers from serious demerits. Since wages are proportionate to the actual work done, labourers usually work very hurriedly and over-strain themselves. Their work is, as a consequence, poor in quality; besides, their health is seriously injured and they become old at a premature age. Moreover, if the labourer falls ill, he does not get remuneration for the period of his absence from the factory, which is a matter of special hardship to him, living as he does from hand to mouth. Further, it creates jealousy and competition among workers.

Scope of These Methods

Too much emphasis should not be laid on the real differences between these two methods of wage payment. At bottom, both the methods have intimate relationship with each other. Piece wages are always fixed on the basis of the time required for the performance of the particular work in question. Similarly, time wages are fixed after a careful consideration of the work which can be done during a certain time. "Presumably employer endeavours to get the same amount of labour for his money whichever method he adopts."¹⁴ The primary considerations leading to the preference of one system over another are (1) the quality of the workmanship and (2) the measurability of the work performed. If high workmanship is necessary or the measurement of the work done is difficult, time wages are given; in the opposite case, piece wages are paid. Generally speaking, time wages are most widely adopted.¹⁵

§ 7. TRADE UNIONS

Meaning of Trade Unions

We have seen that the bargaining capacity of an individual labourer is very weak. They can successfully compete with:

¹⁴ Clay, *Economics for the General Reader*, p. 297.

¹⁵ A very interesting account of these methods is to be found in the U. S. A. *Final Report of the Industrial Commission* (1902), pp. 735-736.

employers only if they combine together and bargain collectively. With this object in view, labourers organize themselves into labour of trade unions. Sydney and Beatrice Webb, authorities on trade unionism, define a trade union as "a continuous association of wage-earners for the purpose of maintaining or improving the conditions of their employment."¹⁶

The functions of a trade union are the following: (1) To emphasize the common interest of the labourers and, by spreading the feeling of brotherhood, to foster unity and, solidarity among them. (2) To maintain and conserve the advantages and privileges secured for the labourers. (3) To make efforts for improving their position still further, to fight the cause of the workers and to secure all vantage positions for them. Due to this fact, it is called a *militant organization*. The chief advantages for which it fights are an increase in wages and a reduction in the hours of work. (4) To work as a benefit organization and to provide relief to the members at the time of sickness or accident and to support them when they are unemployed. This function gives it the designation of a *ministrant association*. (5) To increase the efficiency of labourers through public health campaigns, literacy, propaganda and otherwise.

Trade Unions in India

History. Trade unions of the western variety were born in India for the first time during the 1880's. But the real beginning of the movement was made in 1918. During that year prices rose considerably while wages lagged behind; and political unrest joined hands with labour discontent. Mr. B. P. Wadia in Madras and Lala Lajpat Rai in the Punjab started some trade unions. The movement slowly spread from Madras to Bombay which now is its real home. Labourers received much sympathy from the public and public bodies like the Indian National Congress, the Home Rule League and the Muslim League. In 1923, however, conditions of labourers improved. In the early stage of the trade union movement, it is the tie of common financial distress that holds labourers together; and as this tie became loose, the movement lost its vigour and vitality.

These early trade unions were merely strike committees, set up temporarily for the immediate purpose in hand and dissolved as soon as the object was achieved or could not possibly be achieved. But the Trade Unions Act of 1926, which as a landmark in the history of Indian trade unionism, changed all this. Prior to this Act, there was no special trade union legislation. The old conspiracy principles of the common law were applied to labour combinations with fatal rigour. The 1926 Act conferred many privileges upon registered

¹⁶ The *Trade Union* is an organization designed to put up the seller of labour on an equality with the buyer as regards bargaining strength—Clay, *op. cit.*, p. 306.

trade unions. It was provided that any act in furtherance of trade disputes on the part of trade unions or anybody else was not legally punishable. It placed the movement on a firm footing in India.

The Indian Trade Unions Act has been a source of considerable strength and stimulus to the labour movement and its best asset. Various other factors, e.g., influence of the Russian Revolution of 1917, the establishment of International Labour Organization in 1920, the Swaraj Movement of 1921-24 and the success of strikes which took place, influenced the growth of the trade union movement in its early stages.

Present Position. In 1949-50 there were about 3,400 registered trade unions in the country. Their number was only 700 in 1938-39, i.e., before the World War II. This means that the number of trade unions increased five times during the period of the World War II. The number of members of these unions in 1949-50 was over 18 lacs, as against 4 lacs in 1938-39. The number of members thus increased during the period of the World War II by $4\frac{1}{2}$ times. Most of these unions are industrial unions, that is, they organize all the workers in a single industry irrespective of their occupation, skill, sex or earnings.

There are at present four all-India organizations of trade unions, viz., Indian National Trade Union Congress (INTUC), All-India Trade Union Congress (AITUC), Hindi Mazdoor Sabha, and United Trade Union Congress (UTUC). The INTUC was formed in 1947 by the Indian National Congress to direct labour movement in the right channel and today it is the most representative labour federation. The AITUC was formed in 1920 and it was the most representative all-India organization of labour before the formation of INTUC. Hind Mazdoor Sabha and UTUC are not very important federations. The lead given by INTUC has been a source of great strength to the labour movement of the country since this organization draws its inspiration from the Congress Party which is in its power today in the country.

Difficulties of Trade Unionism in India

Trade unionism has not, however, made any substantial headway in this country and its rate of progress has been rather slow. The following are some of the difficulties of the movement hindering rapid growth :

(1) *The Migratory Character of Indian Labour.* Industrial labourers in India do not depend upon factory work only. On the other hand, they come to work in them only during the off season and go back to their fields when agricultural operations begin. Because of their temporary stay in factories, they fail to take an abiding interest in trade unions which cannot, therefore, be easily organised on a permanent basis.

(2) *Heterogeneous Character of Indian Labour.* The labour force of our industrial centres is constituted by labourers drawn from different provinces, different castes and different religions. They speak different languages and have different customs and modes of living. Consequently, they cannot mix freely with each other and the bond of unity is often weak.

(3) *Lack of Discipline.* Indian labourers are not used to party discipline. They often find the rules and regulations of trade unions irksome and regard subjection to them as an uncalled for bondage.

(4) *Poverty of Indian Labourers.* Our labourers are very poor and cannot easily pay the membership fee of trade unions. Consequently, many of them do not join the unions; and even if they do join them, they commit defaults in regular payment when their names are struck off the register.

(5) *Illiteracy.* Labourers, being illiterate, fail to appreciate the real purport of trade unionism. They do not understand that by combining themselves, they can offer collective resistance against the employers and secure advantages which they would never be able to obtain individually.

(6) *Lack of Labour Leaders.* Labourers do not have their own leaders. Usually politicians assume the role of labour leaders when it is politically advisable to stir labour discontent, and withdraw as soon as the political necessity loses force or the political movement languishes. However, some sustained and regular work is done by them and also by lawyers who also become labour leaders. As leaders they are not as useful as labourers themselves could be in that capacity.

(7) *Opposition of Employers and Supervisors.* Employers oppose trade unionism in various ways; and because of their strong bargaining capacity, they often become successful. Again, the supervisors and bosses who supervise and employ labourers can exercise their authority easily when labour is disorganized. Hence they offer resistance to labour combinations.

With the march of time, these hindrances are weakening, and trade Unionism is gathering force in our country. Meanwhile attempts must be made to put the movement on a strong footing and to direct it into the right channel from the very beginning.

§ 8. WAGES IN INDIA

Wages in India are very low and the standard of living of labourers and their efficiency are poor as a consequence. The rate of wages in rural tracts is lower than that in towns and cities. This is partly ascribable to the fact that the purchasing power of money in villages is higher than what it is in cities and towns. But the difference is wider than what such considerations suggest. The

reason is that in rural areas, wages are fixed not so much by competition as by custom. In so far as competition has any influence on wages, it is towards their decrease, for the supply of labour, more often than not, is greater than the demand for it. In cities, on the other hand, competition plays an important role in the wage determination and the scarcity of labour favours the workers. Gradually, as competition is coming into prominence, the difference in nominal wages in rural and urban areas is coming nearer to the difference in real wages.

The general rate of wages has a tendency to increase for a variety of reasons. Practical experiments conducted in India and elsewhere have shown that low wages are dear wages. It is profitable to pay high wages as the increased payment brings more than proportionate return in the shape of increased productivity of labourers. Labourers themselves have begun to realise, though at present nominally, that if they become more efficient, their wages will increase. Moreover, the trade union movement is gathering strength slowly but steadily and has succeeded in many cases in securing a rise in wages. The International Labour Office has also done much to improve the lot of Indian labourers.

TEST QUESTIONS

1. Explain the meaning of wages. What is the difference between wages, pay and salary ?
2. What are the peculiarities of labour ? Explain fully.
3. Lay down the determination of the theory of wages as clearly as possible.
4. Explain the difference between nominal and real wages. What are the factors on which real wages depend ?
5. What do you mean by real and nominal cost of labour. Explain how high wages are cheap wages and low wages are dear wages. Is it a wise policy to lengthen the hours of work ?
6. What are the methods of wage payment ? Explain the respective merits and demerits of these methods.
7. What are trade unions and what are their functions ?
8. Trace the history of trade unionism in India. What are the causes of their slow progress in this country ?

EXAMINATION QUESTIONS

U. P., Inter Arts

1. "High wages are low wages; low wages are high wages". Explain clearly the meaning of these contradictory statements. Give examples. (1951)
2. Write a note on Real Wages. (1950)
3. How are wages affected by (a) the standard of living, and (b) the caste system. (1948)

(b) Time and piece wages. (1947)

53. How are wages determined? How will you explain inequalities of wages? (1945)

54. Explain the functions and importance of trade unions. (1945)

Nagpur Int. Com.

55. Why are wages different in different occupations and countries? (1944)

56. Discuss the main causes of the difference in wages. Why does an I. C. S. Officer get Rs 3,000 per month while his chaprasi gets only Rs 20 per month? (1947)

57. Write note on: (a) real wages: (b) time and piece wages. (1947)

58. Explain clearly what do you understand by real and nominal wage. How are wages determined? (1946)

59. Explain why workers in different occupations get different wages although they may be living in the same town. (1946)

Bombay, Int. Com.

60. Account for differences in wages (a) within the same occupation and (b) as between different occupations. (1949)

61. "Between the upper limit set by marginal productivity and the lower limit set by subsistence, wages are indeterminate." Discuss. (1948)

Poona, Int. Arts

62. Distinguish between 'nominal' and 'real' wages. Account for the differences in wages in different occupations. (1949)

63. What are the aims and methods of Trade Unions? Would you justify the right to strike? (1949)

Poona, Int. Com.

64. How are wages determined? Explain the differences in wages among different occupations. (1949)

Andhra, Int. Arts.

65. Why do wages differ (i) from occupation to occupation (ii) from country to country? (1944)

Punjab, Inter.

66. Explain the laws that determine wages under free competition. (1951)

67. How are wages influenced by (a) foreign competition, and (b) trade unions? (1950)

68. What are the causes of industrial strikes? Are these always successful? (1949)

69. Distinguish between nominal wages and real wages. (1949)

70. Trace the relationship between the standard of living and the rate of wage. To what extent are wages in India governed by the standard of living of the people in (a) villages, (b) towns? (1948)

Delhi, Higher Secondary

71. Discuss broadly how the state in India regulates the relations between labour and capital. Illustrate your answer with examples. (1951)

72. Distinguish between real wages and nominal wages. What are the causes of differences in wages? (1951)

73. Write a note on Real Wages. (1948)

CHAPTER 63

INTEREST

In every act of production in modern industry, manual work, organizing work, capital in the form of machines and power, plant and land, co-operate and because they co-operate, share in the product. Interest is paid for the use of capital because the capital is productive; it enables its user to produce more than he could without it and out of this additional product interest is paid.—*Henry Clay*.

§ 1. INTRODUCTORY

Meaning of Interest

The word *Interest* is one of common usage and the reader is probably familiar with it. The economic meaning of this term does not differ from its everyday sense. The payment made by the borrower to the lender for the use of the latter's capital is commonly called *interest*. It may otherwise be described as the share of the national dividend accruing to the suppliers of capital. Capital is mostly lent in the form of money and interest is also paid in that shape. It is expressed as a certain percentage and is calculated mostly yearly.

Interest can be looked upon from two standpoints. *From the point of view of the borrower*, capital contributes to the production of wealth; in other words, it has productivity. It is because capital produces some value that the borrower finds it possible to pay interest for its use. *From the point of view of the lender*, the accumulation of capital and its disposal as a loan involve the abstinence from immediate consumption; and interest is a reward for that abstinence. Interest may, therefore, be better defined as the payment made by the borrower of capital, by virtue of its productivity to its owner, as a reward of his abstinence¹.

¹Interest is the income which capital returns to its owner whether he lends it or employs it himself in his own business. There are three forms in which this income may be returned. In the first place, it may come as payment for the loan of a general fund of wealth. Such a loan usually takes the form of money or some substitute for money such as a credit instrument. In the second place, the capitalist's income may be received for the loan of certain specific pieces of capital such as building and machinery; and in the third place, it may be secured from the use of capital in his own business.

In popular language, only the first form of the capitalist's income is invariably called interest. The second is called either rent or interest and the third either profit or interest. But since they are all alike in being derived from the ownership of capital, economists have generally chosen to call them all by one name, and have chosen *interest* as that name, reserving the word "rent" for the

The Problem of Interest

The problem of interest is divisible into three broad questions :

(1) Should interest be paid on the moral and ethical grounds ?

(2) Why is interest paid and charged ? This differs from the first question inasmuch as this is a purely economic issue while the preceding one is mainly a moral and ethical one.

(3) How is the rate of interest determined ?

Of all these questions, the last one is the most important and will be discussed in § 2. The first two questions are dealt with below.

1. Should Interest be Paid ?

The question of the ethical justification or impropriety of charging interest is mainly a moral one ; and economists are not directly interested in it. But, like all the ethical problems, it has an economic aspect and is, therefore, discussed below.

The Condemnation of Interest in Ancient Times. In ancient and mediæval times, interest was generally condemned. The church forbade the lending of money on interest. Plato looked down upon usury ; and Aristotle criticised it in unmistakable terms giving the progeny the celebrated phrase "Money is barren, it cannot breed money". The Islamic religion also prohibited it strictly. The reason for this universal deprecation of interest was that in those days the society had not much developed industrially and commercially. Money was generally borrowed either in times of want and distress or for prodigality. As such, (i) lenders could easily oppress the borrowers by charging exorbitant rates which often ruined the the borrowers ; and (ii) since capital was not put to productive purposes, the fallacy that capital could not "breed money" and the charging of interest was, therefore, unjust, could arise even in a mighty mind like that of Aristotle. Due to these reasons interest was condemned. This prohibition was also partly due to the fact that most of the money-lenders in Europe were Jews, who were non-Christians and were an eye-sore to Christians.

It is significant to note that the code of Manu in India did not forbid interest. It shows that Manu and other ancient thinkers of this country were intellectually supreme and considered the problem in all its aspects. It was also due to the fact that India was

income derived from the ownership of land, and "profit" for an income which has been variously described, but which usually has some connection with the peculiar function of the independent businessman himself rather than with that of his land or capital.—Carver, *Distribution of Wealth*, pp. 213-214

industrially and commercially an advanced nation in those times and the productivity of capital was well appreciated.²

The Modern Justification. Slowly the world emerged from the industrial and commercial backwardness. Inventions in various spheres gave an entirely new outlook to the people. Manufacturing machines multiplied. The network of the means of transport and communication began to spread rapidly. Trade, national and international, increased by leaps and bounds. The productive nature of capital asserted itself with unmistakable prominence. It began to be realised that since capital brings financial benefits to the borrower, it is only fair that he should give a part of that benefit to its owner. It was also felt that saving involves the postponement of present consumption on the part of the capitalists, a sort of pain which will not be deliberately borne unless rewarded. These considerations made the old prohibition against taking interest obscure and today it has become a thing of the past. This change vividly brings before our mind how Economics influences Ethics.

Interest and Usury. Though interest is generally justified (except by socialists), usury is usually looked down upon. Usury differs from interest in the sense that it exceeds the latter and is, therefore, unjust. It may be described as exorbitant or excessive interest.³ It may be well likened to rack-renting. Under special circumstances, a landlord can charge rent higher than economic rent; such an action is called rack-renting. Under similar circumstances, a capitalist can charge more than the proper rate of interest; such excessive interest is called usury. Usury is deprecated ethically, condemned socially, and often prohibited legally.⁴

Why is Interest Paid and Charged ?

We shall now discuss the economic conditions which make the borrower pay and the lender charge interest.

The borrower pays interest because he knows that *capital is productive* and out of its productivity he can pay a sum in the shape of interest to the capitalist. For instance, an ordinary cap-maker in a village, working without a sewing machine, may be earning Rs. 10 a month. He knows that if he has a sewing machine, he can make

²For a lucid account of the early history of interest, see Irving Fisher, *The Rate of Interest*, pp. 4-7. Also Dr. H. S. Gour, *The History and Law of Interest*.

³The term 'usury', as contra-distinguished from interest proper, signifies interest at a rate higher than that limited by law as legally eligible—Dr. H. S. Gour, *The History and Law of Interest*, p. 135.

⁴The exact rate of interest.....is determined by supply and demand.....but clearly the lender must not extort a rate of interest greater than that which is fair and reasonable to demand. In certain cases the law of the land steps in to control the rates at which money may be lent. Crump, *A First Book of Economics*, p. 99.

more caps and earn, say, Rs. 20 per month. The productivity of the machine, then, is Rs. 10 per month. Now, if he offered sufficient money to purchase a sewing machine on the payment of Rs. 5 per month as interest, he will readily agree to the transaction. He will have to pay only a part of the productivity of machine as interest, the remainder being left with him.

The second consideration which forces him to pay interest is the fact that the *capitalist saves capital painfully*. He postpones the satisfaction of many present wants and by stinting the present pleasure, saves capital. Not only this; he himself does not use capital productively, but foregoes that privilege in favour of the borrower. For this abstinence or sacrifice, he must be rewarded. Unless this reward is forthcoming, he will not supply capital. That is why the borrower consents, to pay interest. The productivity of capital enables the borrower, and the abstinence or sacrifice involved in its supply compels him, to pay interest.⁵

These considerations also work in the mind of the capitalist and make him charge interest. Firstly, he knows that capital is productive; hence if he does not derive the benefit of its productivity himself and gives this privilege to somebody else, he must get a fraction of that benefit. Secondly, he wants some reward for the abstinence or sacrifice he has to make in supplying capital.

The reasons, then, why interest is paid and charged are the productivity of capital and the abstinence or sacrifice involved in its supply.

§ 2. THEORY OF INTEREST

We shall now discuss how the rate of interest is determined. This question has occupied the attention of economists from very early times and various theories of interest have been propounded. The most important of these theories are (i) The Productivity Theory, (ii) The Abstinence Theory, and (iii) The Austrian Theory. Each of these theories contains some truth but does not discuss the problem in its entirety and with perfect accuracy. Often they throw light only on

⁵If we appeal to the common consciousness to say what is that capital does, or forbears to do, that it should receive interest, we shall probably get two answers. One will be that the owner of capital contributes a valuable element to production; the other, that he abstains from using his wealth in his own immediate consumption. On one or other of these grounds, the capitalist is said to deserve a remuneration and this remuneration is obtained by him in the shape of interest. The first contribution is positive—that capital does something; the other negative—that the capitalist abstains from doing something. In the one case interest is a payment for a tool; in the other, a recompense for a sacrifice. The first answer is the basis of the Productivity theories and of the Use theories; the second is the basis of the Abstinence theory.—See Smart's Preface to the Translation of Bohm-Bawerk, *Capital and Interest*, pp. VII-XVII.

one aspect of the problem. They have, therefore, been substituted by the Modern or Demand and Supply Theory of Interest, which is considered to be the best available explanation of the way in which interest is determined. According to it, interest is determined, by the demand for and the supply of capital. It is the point of equilibrium at which the demand for capital is equal to its supply.

1. Demand for Capital

Demand for capital comes from those who want to use it productively, *e. g.*, traders, manufacturers, and agriculturists. Sometimes Government also borrow money for the construction of productive work like hydro-electric projects, means of transport and communication, etc.

The contribution made by a dose of capital to total output is called its *productivity*. It has been found by experience that the productivity of every successive or additional dose of capital (*i. e.*, marginal productivity of capital) goes on declining as more and more capital is employed, provided the quantity of other factors is not changed. The productivity of capital thus resembles the utility of a commodity which also diminishes with an increase in its supply.⁶ Now, when an entrepreneur considers whether or not he should employ an additional dose of capital, he compares the productivity of the additional dose of capital with the interest that will have to be paid on it. He will go on employing more and more doses of capital so long as the productivity of each additional dose of capital exceeds the interest paid on it. In course of time, a point is reached at which the productivity of the last unit of capital is equal to the interest he is required to pay for it. The employer will stop at this point and will not demand capital any more. The last unit of capital is called *final unit* because it is the last unit which a capitalist can, or will, employ. It is also called *marginal unit* because it is on the margin of employment or rejection. Its productivity being equal to interest paid on it, it is a matter of indifference to the entrepreneur whether this dose is employed or not; the employer may use this unit or may not use it. The productivity of this marginal or final unit of capital is known as *final or marginal productivity of capital*.⁶

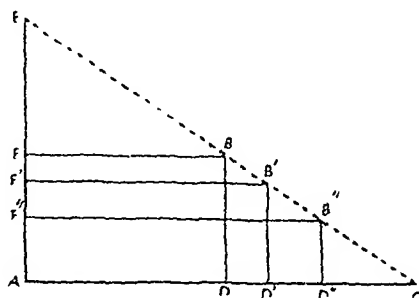
⁶*Measurement of Marginal Productivity of Capital.* Marginal productivity of capital can be measured in terms of money by finding out the increase in the income of a firm if one more dose of a capital is employed. Suppose a mill is using Rs 1,00,000 as capital and its annual income is Rs. 12,000. Now if it employs Rs. 1,000 more (*i.e.* Rs. 1,01,000 in all), its income might go up to Rs. 12,120. Then Rs. 120 is the marginal productivity of capital (assuming that capital is employed in doses or units of Rs. 1,000).

The working of the law of marginal productivity as applied to capital might be illustrated by means of the following diagram :

The maximum that the borrower will pay for the marginal unit of capital is its productivity: he will not pay more than that. And since each unit of capital is interchangeable with any of the other units, he will pay the same for every other as well. It follows, therefore, that the marginal productivity determines the maximum that the producer is willing to pay for the use of capital.⁷

Supply of Capital

The supply of capital involves abstinence or sacrifice and unless an adequate reward for it is forthcoming, capitalists will not supply capital. The money measure of the abstinence or sacrifice involved in supplying capital is, then, the minimum below which interest cannot fall. It may be called the cost of production of capital; and just as the cost of production of a commodity determines the maximum limit of its price, similarly the cost of production of capital determines the lowest limit to which the rate of interest can fall.



Let the amount of capital be measured along the horizontal line AC, and let the productivity of capital be measured along the perpendicular line AE, and let the descending line EC represent the rate of decrease in the marginal productivity of capital. If the amount of capital were measured by AD, the marginal productivity would be measured by the line BD or AF. If the amount of capital were measured by AD', the marginal productivity would, other things remaining equal, be measured by the line B'D' or AF'; and when the amount of capital equals AD'', marginal productivity would be equal to B''D'' or AF''. If capital went on increasing to AC, the marginal productivity of capital will be destroyed altogether.—Carver, *op. cit.*, p. 223.

Money demanded for non-productive purposes cannot, according to our definition of capital, be included under this term. But non-productive demand is similar to the demand for productive purposes and, therefore, exercises an influence on the determination of interest on capital. It is, I believe, for this reason that some economists add the non-productive demand to the productive demand in order to arrive at the total demand. It should be remembered, however, that in the case of capital used productively, it is *marginal productivity* which determines the maximum limit of the rate of interest. But in the case of wealth borrowed for non-productive purposes, it is the *marginal utility* which determines this maximum. This difference does not appear to me very important in this context; and the above method of treatment may be followed.

Determination of the Rate of Interest

Between these two limits, the maximum as determined by the marginal productivity of capital and the minimum as fixed by the abstinence or sacrifice involved in the supply of capital, the rate of interest is determined according to the relative forces of demand and supply, by mutual bargaining and higgling of borrowers and lenders. In new countries where men happen to be progressing economically, the demand for capital is great; so the rate of interest is high. As communities grow and advance, capital increases and is in time than enough to meet even increased demand; so the rate of interest falls.

§ 3. NET AND GROSS INTEREST

Meaning

The payment made exclusively for the use of capital, is called *net interest*. It may be also defined as the income derived from capital invested in channels free from risk, inconvenience and management duties. What the borrower actually pays to the capitalist for the use of his capital is known as *gross interest*.^a The payment so made includes, besides net interest, any or all of the following factors:

(1) *Insurance Against Risk*. When a man entrusts his capital to somebody else for some time, he incurs the risk of its loss as a result of the inability or unwillingness of the borrower to pay back his debt. To cover this risk he makes some charge which is added to the net interest.

The risk is of two kinds: (a) *Business Risk*. The business followed by the borrower may be safe or risky. For instance, the work of a publisher is not so risky as that of a speculator. As such the charge made for the risk by the lender of capital will be greater in the latter case than in the former. The risk attached to the business of the borrower determines his *ability* to pay. (b) *Personal Risk*. A man may be able to pay but may not be willing to do so. He may be of dishonest intentions. The gross rate of interest charged from such man will be naturally high. It will be low in the case of the borrower who is famous for his integrity and who takes pride in paying off his debts as readily as possible.

(2) *Remuneration for Inconveniences*. Some investments of capital involve many inconveniences. In some cases money is payable

^aGross interest is what we mean by interest in ordinary talk, the whole amount that a borrower has to pay, while *net interest* is that portion of the gross interest which is paid simply for the use of capital—Moreland, *Introduction to Economics*, p. 252.

at any moment, may be at the time when the borrower has no other source of investment; in others, it may be payable only after a very long period. Again, some investments can be made only in large amounts, *e. g.*, in the shares of the Imperial Bank, the value of each of which is one hundred rupees; or, they can be made in only small amounts, like the deposits in a savings bank account. The capitalist charges something for such inconveniences. An important cause of the high rate of interest charged by Pathans and Kabulis is the great inconvenience involved in the realization of loans. An ideal investment is one where money may be invested at any time and in any amount and withdrawn whenever desired. Such an investment involves no inconvenience and no remuneration is charged for it.

(3) *Remuneration for Management.* The lender has to spend money and energy in the management of an investment. He has to discover the likely borrowers and carefully consider the safety of the loan made to them. He has to settle the rate of interest with them. The necessary legal formalities have to be undergone. Proper accounts have to be maintained. The borrowers do not pay punctually and reminders have to be sent constantly till the debt is cleared off. For this management, a charge is made in the shape of an addition to the net interest. In our rural areas the small loans given by *mahajans*, *Pathans* and *Kabulis* involve much labour and management. Re-payment is arranged in small instalments and for the collection of each instalment villagers have to be approached several times. This is one reason why the rate of interest is so high there.

Variations in Gross Interest

Generally speaking, the net rate of interest is more or less the same everywhere: competition among borrowers and lenders tends to reduce it to the same level. But due to variations in the risk involved in the loan, inconveniences of investment and the labour of management, gross interest (which is called interest in everyday speech, though not in Economics) differs widely. Investment in Government securities is quite safe, is not inconvenient and does not involve any labour of management. It is, in fact, the nearest approach to the net interest in practical life. The rate of interest payable by strong and well-known banks is also sufficiently low. The interest which a city businessman or manufacturer pays is more than that paid by the Government, in proportion to the risk, inconveniences and managerial duties involved. When we come to rural areas, we find even higher rates of interest. This is partly due to the fact that the loan given to the agriculturist is very risky. In spite of his sincerity, he might not be in a position to repay the loan. It is the experience of money-lenders that once the loan is given to

the cultivators, it is repaid very gradually. Moreover, inconveniences of such a loan are also great, there being no definiteness about the duration, amount, or repayment of the loan. Finally, the labour of management, as seen above, is also tremendous.

Rates of Interest also Vary from Country to Country. This is due to the international immobility of capital. Investors in foreign countries have the fear that if the foreign debtor does not pay, the trouble and expenses of taking legal action against him will be huge. Moreover, foreign courts may not be just to him always and in all cases. Finally, if international hostilities break out, foreign capital may be forfeited entirely—even the Government loans may be repudiated in such a case. These causes, together with those discussed above, make for variations in the gross rate of interest from country to country.

4. THE RELATION OF INTEREST TO PROGRESS AND RENT

Effect of Progress on the Rate of Interest

As society progresses socially and economically, demand for capital goes on increasing. Firstly, the use of machinery extends. Mechanization and re-mechanization progress cumulatively. Scale of production and of trade becomes large. Huge capital is, therefore, demanded. Secondly, the modern State tends to embark upon increasingly ambitious schemes in the interest of its members, which are sometimes financed by loans. Finally, much capital is destroyed by wars, natural calamities, etc., and demand for fresh capital to take its place often arises. Though all these causes increase the demand for capital, its supply increases much more rapidly. Substantial improvements in methods of production and in the efficiency of industrial organization increase the amount of wealth produced per year. Savings become larger as people develop foresight and begin to realise the value of keeping something for the future use. The supply of capital thus outstrips the demand for it with the progress of society, with the result that the rate of interest tends to fall. This has been amply proved by the history of interest during the recent past.⁹

Zero Rate of Interest. Some economists believe that the tendency of the rate of interest to fall will go on increasing till a stage will be reached when it will become zero. It is difficult to agree with this point of view. This theory substantially means that after some time a stage will come when our wants will be satisfied and we need

⁹See my *Insurance Finance*, p. 43. An interesting objective evidence of a fall in the rate of interest is the rate assumed by insurance companies in their calculations. This has been continually declining. Thus Gustav W. Smith assumed 4 per cent interest in 1875 in his *Notes on Life Insurance*; Riegel and Loman, 3½% in their *Insurance Principles and Practices*, 1924; while recent works take 3 per cent interest in their calculations, e. g., see Maclean, *Life Insurance*.

not employ any capital for the production of wealth. The marginal productivity of capitals, in other words, will drop down to zero. But human wants, as we know, are innumerable; and as soon as one want is satisfied, another arises. So long as this continues to be a fact, there will remain numerous channels for the profitable employment of capital. Again, zero rate of interest can exist when people are willing to save without any expectation of rewards: in other words, when they become so perfectly rational as to realise the value of providing something for the future use and to feel no pain in saving. The assumption of perfect rationality of human beings is a mistake because men are seldom perfect. It is, therefore, wrong to suppose that a stage will arrive when the rate of interest will drop down to zero.¹⁰

Rent and Interest

Interest is the share of national dividend accruing to capitalists while rent is the share available to landlords. In short period, both rent and interest are similar. Capital cannot be increased in short period; neither can the land. This is the reason why income on capital goods, which are limited in supply in the short period, is called *quasi-rent*. It is, however, in the long period that the real difference appears. The supply of capital can be increased in long period; the supply of land, on the other hand, is fixed for ever. As such, while the progress of society, which increases the demand for capital and land alike, depresses interest, but stimulates rent. Moreover, net rate of interest is equal everywhere, but rent differs from place to place according to differences in fertility or accessibility, or both. Finally, rent of a land is the excess of its production over that of the marginal or no-rent land, but interest is not determined in this way; in fact, there is no capital on which no interest is paid.

§ 5. INTEREST IN INDIA

Rate of interest in India has three main features: (1) It is very high, (2) It varies from one place to another. (3) It changes from season to season. We shall study these characteristics in detail.

High Rates of Interest in India

In our country, the rates of interest are very high as compared to other countries of the world. High rates of interest constitute an effective obstacle to the industrial and economic development of the country. The causes of high rates are the following:

¹⁰ Proudhon argued that since the rate of interest declines as civilization advances, its total abolition was only a question of time. This is as good a proposition, says Bastiat, as this: since the most skilful agriculturists are those who have reduced the heads of sheep to the smallest size, we shall arrive at the highest agricultural perfection when sheep shall have no longer any heads!

(1) *Huge Demand for Capital.* India is economically little developed but is gradually emerging from the state of backwardness. The demand for capital is, therefore, huge. Enormous capital is required by industrialists for starting industries like iron and steel, cement, match, paper, silk, etc. Agriculture also requires capital for permanent improvements, better equipment, and mechanization. The Government also float loans for extending hydro-electric works, railways and other means of transport and irrigation. The demand for capital being so great, other things remaining the same, the rate of interest is likely to be high.

(2) *Scarcity of Capital.* While discussing the accumulation and supply of capital in our country, we found that the ability and willingness of our people to save is very weak. Naturally, the supply of capital is little as compared to the demand for it. The amount of wealth not spent by the masses of a country is hoarded rather than deposited in some bank or used productively and thus converted into capital.

(3) *Defective Banking Organisation.* The banking system of the country, which is the connecting link between borrowers and lenders, is very disorganized and defective. Banks being very few in number, difficulties in depositing money and in taking loans are great. Again, the lack of various types of banks leave many credit requirements unattended. These conditions push up the rates of interest.

(4) *Usury.* The village *moneylender*, under the circumstances, charges usurious rates of interest. He occupies a monopolistic position and has to give loans on little or no security to persons who might not be able to pay in spite of their best intentions.

(5) *Loans for Consumption Purposes.* Borrowers use the money borrowed by them for productive and unproductive purposes indiscriminately. Productive loans are safe because they produce wealth out of which the loan can be paid back. This is not the case with non-productive loans. Hence the utilization of loans for non-productive purposes increases rates of interests.

Local Variations in Interest

Another important feature of interest in India is that the rates of interest differ considerably from one place to another. The difference between the rates prevalent in urban and rural areas is specially noteworthy. This is because of the fact that India possesses two money markets, urban and rural, rather than one. The urban money market is well organized and here the rates of interest are fairly low and uniform. The rural money market, on the other hand, is disorganised and here the rates of Interest are high and varying.

29. Write note on Gross and Net Interest. (1949)

Banaras, Inter. Arts

30. Define 'Interest'. Why does the rate of interest differ from borrower to borrower? (1949)

31. Distinguish between 'net interest' and 'gross interest' and explain why the rate of interest paid by a cultivator in India is very high. (1947)

Banaras, Inter. Com.

32. How is interest determined? Account for the prevalence of high rates of interest in Indian villages. (1949)

33. What is the difference between 'Gross Interest' and 'Net Interest'? Why are the rates of interest much higher in Indian villages than in cities and towns? (1947)

Bombay, Inter. Com.

34. Why is interest paid? Explain why there are differences in rates of interest (a) at any one time (b) in different periods. (1948)

Poona, Inter. Com.

35. How is the rate of interest determined? Distinguish between gross interest and net interest. (1949)

Travancore, Inter.

36. Why is interest paid? In the light of your answer explain the fact that interest on capital is at one period relatively high and at another period relatively low. (1943)

37. Account for the difference in the rate of interest paid by (a) the Govt. of India on its public borrowing, (b) Indian ryot on his loan for village money-lender, (c) a member of a rural co-operative credit society on his loan from that society. (1943)

Punjab, Inter.

38. "Interest is the price paid for the use of capital." In the light of this remark explain how and when changes in the rate of interest may be expected. (1950)

39. Distinguish between Gross Interest and Net Interest. (1949)

40. Do you justify the charging of interest on loan advanced by a money-lender to the borrowers? In what respects does this payment differ from the profits accruing to businessmen in the supply of, say, wheat. (1948)

Delhi, Higher Secondary

41. Distinguish between Gross and Net Interest. Is there any justification for the payment of interest? (1950)

42. Why are not all persons able to obtain loans at the same rate of interest? Give reasons for your answer. (1950)

43. Why is interest paid? Explain how the rate of interest is determined? (1948)

CHAPTER 64

PROFITS

The true rate of profits in large business is higher than at first sight appears, because much that is commonly counted as profit in the small business ought to be classed under another head, before the rate of profits in it is compared with that in a large business.—*Marshall*.

§ 1. INTRODUCTORY

Meaning of Profits

Profit is the reward of the risk-taking function, accruing to entrepreneurs or risk-takers. Otherwise expressed, the share of the national dividend accruing to the entrepreneur is known as profit. Economists are not yet agreed as to the constituents of profits and the way in which it is determined. Considerable difference in opinion exists on various points and makes the subject confusing to the beginner. We shall, therefore, set forth the most reasonable and logical opinions on the subject.

Profit, a Residuum

Before proceeding further, let us see how profits are found out in practical life. The entrepreneur anticipates the probable future demand and the price of the goods he contemplates to produce. On the basis of this estimate, he enters into separate contracts with landlords, capitalists, labourers and organizers; and production is commenced. The entrepreneur makes payments to the various agents of production according to the rates agreed upon. If something is left from his income after payments are made to the agents concerned, it is his profit. If, on the other hand, his income falls short of the payments he makes, he incurs a loss. Profit is only a residual share of the produce of industry.

It should be remembered that profit is a residual share, not in the sense that rent, interest, wages and salaries are determined by certain special laws applicable to each of them; while any residue left out after these payments have been made is called profit, there being no other law governing its determination. In fact, profit is also determined by its own law. Profit is a residuum in the *practical sense* that what is left over after the payment made to all the agents of production, is known as profit.¹

¹See Carver, *Distribution of Wealth*.

§ 2. GROSS AND NET PROFIT

Meaning

In the popular sense, the word profit is used to denote the total return to the entrepreneur after paying rent and interest for the land and capital hired and wages and salaries for the labour and organization employed. In other words, it is equal to the excess of the receipts of a business over the actual expenses incurred by the entrepreneur. This profit is known as *gross profit*.

Net profit is not so extensive a term as gross profit. A reward accruing to the entrepreneur only for this risk-taking function and bargaining skill is known as *net profit*.

Constituents of Gross Profit

Gross profit is made up of various constituents of which net profit is one. In is, therefore, instructive and interesting to find out its other constituents. The various elements which may be included in gross profit are given below.

(1) *Reward to the Factors of Production Supplied by the Entrepreneur Himself*. In many businesses, entrepreneur himself supplies various factors of production. He is not required to make any payment in respect of them to any outsider; nor does he, generally speaking, himself receive any reward separately. This payment is usually merged in the gross profit. In estimating net profit, therefore, we should deduct from gross profits the rewards to the factors of production, other than the enterprise, supplied by the entrepreneur himself. These rewards may be the following: (i) *Rent on Land*. The entrepreneur might have supplied land, the reward for which must be deducted from the gross profit. (ii) *Interest of Capital*. Generally speaking, the entrepreneur supplies some capital. Unless he risks his own capital in the venture, he may not get much capital from others. (iii) *Wages for Labour*. Sometimes an entrepreneur himself works as a labourer as in the case of Indian cultivators. He then becomes entitled to certain wages. (iv) *Salaries for Organization*. Whenever an entrepreneur performs certain managerial duties, a reward accrues to him, which should be deducted from the gross profit in order to arrive at the net profit.

(2) *Charges of Maintenance*. (i) *Depreciation Fund*. In the second place, some provision has to be made for the maintenance of capital, or its replacement, as it is gradually used up or becomes obsolete due to better inventions. This provision is known as *depreciation*. Depreciation charges must be deducted from gross profit in order to arrive at net profit, as depreciation charges are the expenses of business. (i) *Insurance Charges*. Sometimes a careful businessman sets aside a certain sum of money as a provision against possible loss. Something has to be deducted from the gross profit in the shape of insurance charges before we can arrive at the net profit.

(3) *Extra-Personal Gains*. Even after making all these deductions, our analysis is not complete. We have also to deduct the extra-personal gains, *i. e.*, gains which are not due to the efficiency, or ability, of the entrepreneurs: (a) *Monopoly Gains*. For instance, a businessman possesses certain monopoly advantages. He may have an effective control over the supply of the article he deals in. In this case his profit will increase but his own efficiency is not responsible for this increment. Therefore, the monopoly gain has to be subtracted from the gross profit. (b) *Conjunctural or Chance Gains*. Again, the occurrence of certain unforeseen circumstances may enable a business to additional reward. For instance, when a great personage dies, there is an unusual demand for mourning goods and traders in the line make great profits. Again, if war breaks out, dealers in arms and ammunitions make huge profits. Such gains are extra-personal resulting as they do from a favourable conjuncture of circumstances which could not have been foreseen. They cannot strictly be regarded as pure profit and have to be deducted from gross profit in order to arrive at net profit.

(4) *Pure or Net Profit*. When all the above deductions have been made from the gross profit, the remaining sum is the *net or pure profit*. It is the reward for two main functions: (i) *Risk-taking Function*. An entrepreneur takes risk on his estimate of future price and the extent of the demand. He agrees to pay certain remuneration to the various agents of production. If he gets a price higher than what he estimates, he makes large profits. If the price realised falls short of his expectations, he incurs a loss. "That it is the owners of business who take the chief risks is clear when we remember that they have paid for the labour, capital and land before the commodity is finished, often before its price can be found, and if the commodity when made is not wanted and cannot be sold, they cannot recover wages, interest and rent expended in the production of it."² (ii) *Bargaining Skill*. While employing various agents of production, the entrepreneur tries to strike as profitable bargains as possible. The degree of his success depends upon his bargaining skill. The reward for risk-taking and the bargaining skill is called net profit.³

²Henry Clay, *Economics for the General Reader*, p. 337.

³The businessman is essentially an enterpriser, an *entrepreneur*, as he is sometimes technically called. Both terms signify one who undertakes or assume risks. It is the reward of this special function which, together with the results of superior bargaining constitutes the peculiar income of the businessman, such an income as is never earned by anyone except a businessman who undertakes risk—Carver. *Distribution of Wealth*, pp. 296-297.

The constituents of gross profit are shown in the diagram] below :

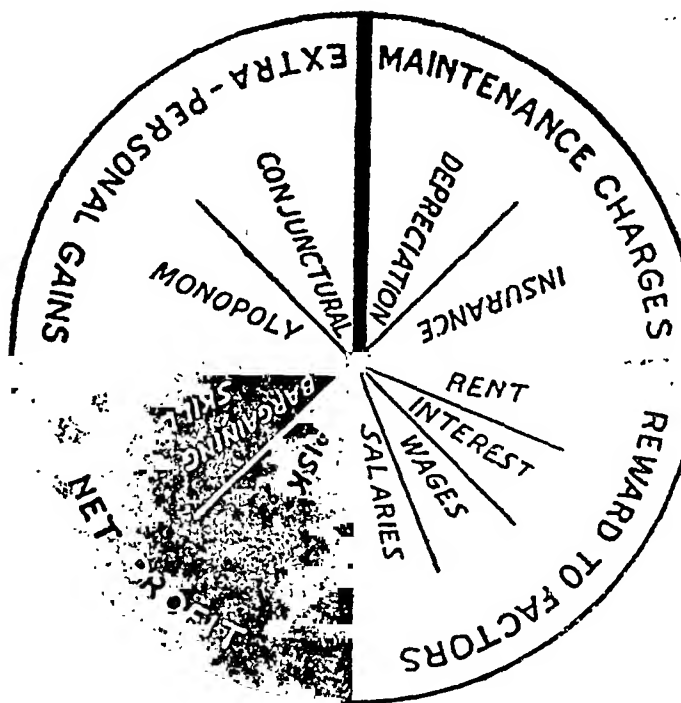
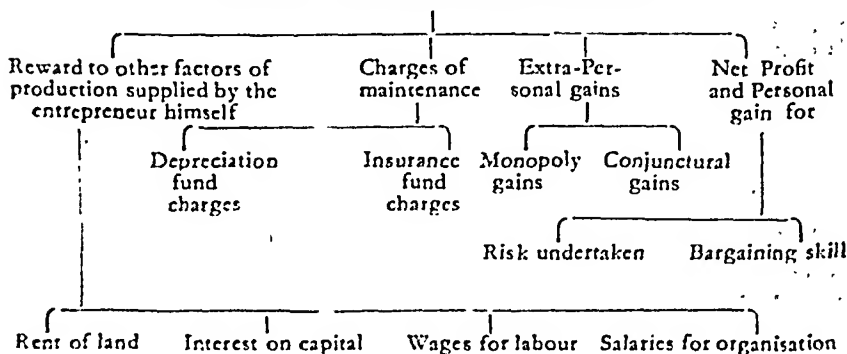


Fig. 68. Diagram showing constituents of Gross Profit.

The above idea can be tabulated as below :—

INCOME—EXPENSES—GROSS PROFITS



The Concept of Net Profit

According to the above description, net profit is the reward for the risk undertaken and the bargaining skill. This is the viewpoint of American economists. Older economists had the wrong notion that net profit also includes the reward for the capital contributed by the entrepreneur himself. In those days, the form of business organization was primitive. One-man businesses and partnerships were the common rule. The risk-taker himself supplied the whole of the capital. As such, their idea that an entrepreneur must also be capitalists and that net profit includes interest was not wrong for the times they lived in. In these days capital is supplied by certain persons while risk is borne by altogether different persons. Hence this point of view is not correct for our own times. F. A. Walker, an American economist, was the first man to draw distinction between the function of an entrepreneur and that of a capitalist. He showed that an entrepreneur need not supply any capital whatsoever, though he generally supplies a substantial part of it. This view is now accepted by economists in general.

Marshall and his English followers maintain that an entrepreneur also does the work of an organizer and his reward for organization is included in net profit. This opinion should now be regarded out of date. An entrepreneur need not himself do the work of an organiser. In a typical joint stock company, for instance, the function of organization is usually delegated to paid managers. It is thoroughly separate from the function of entrepreneurs. Consequently, it is necessary to keep organization and enterprise as two different factors of production.⁴

§ 3. HOW IS PROFIT DETERMINED

Economists are not agreed as to how profits are determined. Different opinions have been put forward by different economists. We shall give here the most reasonable explanation of the determination of profit. While reading other books, students will come across different analyses of gross profit and different theories of the determination of profit. They should not be upset by the diversity of opinions. In the elementary stage, they might understand one explanation; and if they are satisfied with it, they should stick to it.

Normal Rate of Profit

At the outset, it should be made clear that no entrepreneur will undertake a risk unless he gets a reward for it. In the short

⁴ I very strongly maintain that logical sense makes the separation of organization and enterprise inevitable and essential. The Marshallian view is too conservative to be applicable to modern conditions.

period, he may incur a loss ; but he may still continue to remain in the business in the hope that he might make good profit in near future. But in the long period, he must earn reasonable profit for his risk-taking function and bargaining skill. This reasonable profit which is essential to persuade the entrepreneur to undertake the risk is known as *normal profit* ; and *enters into the expenses of production*. This is an important point and should always be borne in mind.

Determination of Profit

Profit, as we have seen, depends upon the personal qualities of the entrepreneur. Personal abilities of the various entrepreneurs show considerable divergence. The abler the entrepreneur, the higher the profit, and *vice versa*. There are some very able entrepreneurs who earn magnificent profits. On the other extreme, there are those unfortunate employers whose income is just sufficient to enable them to meet their expenses (including normal profit) and to keep their heads above water. "At this point, where success is scarcely better than failure, profits are at a minimum; we may, in fact, regard such businessman as the.....marginal class of entrepreneurs, and from this low point upward we measure profits. As the ability, foresight and courage of the entrepreneur increase, so does his reward in the form of profit become greater, and at any particular point the amount of profit is proportionate to the superiority of the abilities of the more capable employer over those of the employer at the margin."⁵

Rent of Ability. The reader will thus find from the above that profit is determined just like rent. The differential advantage of the super-marginal land over the marginal land determines rent ; similarly the superior abilities of a particular entrepreneur over his marginal compeer determines profit. As such, profit is often described as the *rent of ability*.⁶

§ 4. CALCULATION OF PROFIT

Profit per Annum

Profit is generally calculated as percentage of the capital employed during a year. Suppose, during the year 1951 a businessman who has invested Rs. 1,000 as capital, makes a profit of Rs. 120.

His rate of profit, then, is $\frac{120 \times 100}{1000} = 12 \text{ p. c.}$

⁵ Thomas, *Elements of Economics*, p. 331.

⁶ In this theory, the critic may say, it has not been examined how the rate of normal profit is determined. This is simple. This depends upon the demand for and the supply of enterprise. If demand exceeds supply the normal rate of profit will be high ; and *vice versa*. At any particular time, the rate of profit is the equilibrium point at which the demand for and the supply of enterprise are equal to one another.

Profit on Turnover

When the sales of the business come to the level of the capital employed in the business, there is said to be *one* capital turnover. It simply means that the capital is turned over once. If during a year, total sales amount to 4 times the capital employed, there have been 4 capital turnovers.

Sometimes profit is expressed as a percentage of the capital turned over during the year; then it is known as *profit on turnover*. In the above example, we assumed that 12 per cent profit is made on the capital of Rs. 1,000. Now, if the capital has been turned over four times during the year (in other words if the total sale comes to Rs. 4,000 during the year), the rate of profit on turnover is 3 per cent only. Were the capital turnover twice, the rate of profit on turnover would have been 6 per cent.

If a businessman keeps profit on turnover to a small figure, his prices will be fairly low; his turnover will increase as a consequence and his profit in total will be fairly large. If he keeps the profit on turnover fairly high, his prices will also be high; his turnover will decrease and his profits may become small. Profits, thus, depend upon the percentage and the turnover; and usually if one is increased, the other decreases. This alternative always presents itself to the businessman who resorts to the course best to his mind.

§ 5. TENDENCY OF PROFITS TO FALL

As society progresses, profits tend to fall because the rate of increase in the supply of enterprise exceeds that in the demand for it. In this respect, then, it resembles interest which behaves in the same way. It is, of course, unlike rent which rises with the progress of society due to its limited supply.

As knowledge increases and becomes the possession of an ever-increasing number of the members of a society; as inventions spread and an increasing number of employers are enabled to obtain access to new inventions and new processes; and as the number of men of ability of any community becomes more plentiful with increasing advantages for obtaining mental and technical equipment; so do the opportunities to make exceptional gain tend to become less frequent and profits as a whole tend to touch lower levels. This tendency is somewhat offset by a greater demand for enterprise in the new industries set up for supplying new wants. But the increase in demand does not keep pace with increase in supply and the profits tend to fall.

§ 6. PROFITS IN INDIA

The level of profits in our country is low as a general rule for a variety of reasons.

Profits in Agriculture

The agriculturists of this country carry on agriculture at a loss in normal times. The rent that they pay is very high. The majority of the population has to depend upon agriculture because there is no other occupation available to it. Consequently, the demand for land is so great that landlords can indulge in rack-renting without arousing an effective opposition. In the rural tracts rates of interest are also high for reasons we have already discussed. Agriculturists have to pay only rent and interest, they themselves supplying labour, organization and enterprise. Their outgoings (*i. e.*, rent and interest) are definite in amount either because they are fixed by long contracts or because they are customary. But the prices of agricultural commodities had shown a tendency during the pre-war period to sink lower, with the result that the excess of the incomings over the outgoings greatly decreased, so much so that cultivators found it difficult to make the two ends meet. This is with regard to gross profit. If we try to find out the net profit and make proper allowance for the reward of labour, organization and enterprise supplied by the cultivator himself, we find that agriculture was being carried on at a loss. The World War II, however, improved their conditions a bit. Prices of agricultural commodities have increased recently considerably but the cost has not so much increased. Hence cultivators have made profits.

Profits in Large-scale Industries.

Conditions are not so bad in the field of large-scale manufactures. Profits do arise in their case. But profitable industries are very few. Moreover, they have suffered in the past from low profit due to foreign competition, high taxation, and an unrealistic industrial policy. But recently taxation has been made lighter, industrial peace has been restored and a liberal policy adopted in regard to nationalisation. This indicates a bright future for our industries.

Profits in Small-scale Industries

In the olden days, India possessed very flourishing handicrafts, reputed throughout the world for their unique excellence. But the growth of foreign large-scale factory industries wrote their death sentence. Their condition worsened day by day and their profits went on dwindling. Recently the National Government has been making efforts to strengthen them.

Profits to Traders

This survey will not be complete without a description of the profits made by traders and businessmen. Their conditions are, however, different and vary among themselves, so that no general statement can be made. But, on the whole, they have been faring well.

TEST QUESTIONS

1. Explain the meaning of profit. Explain how profit is a residual share of the produce of an industry.
2. Distinguish between gross and net profits. What are the elements of gross profit? Explain fully.
3. How profits are determined? Bring out the significance of normal profits in the determination of true profits.
4. How profit is calculated? Does profit tend to fall with the progress in society?
5. Write a short note on Profits in India.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. Examine critically the idea of Net Profits. In what enterprises, do you think, is there a chance of making high profits in India and why? (1950)
2. What do you understand by profits? Has there been any extension of the field of enterprise in India in recent times? Illustrate your answer. (1948)
3. Distinguish between rent and profit. Explain similarities between them as well. (1945)

U. P., Inter. Com.

4. Write a note on Profit. (1952)
5. What is Profit? Why do money wages differ so much in different occupations? (1947)

Raj., Inter. Arts

6. Write a short note on National Profits and Surplus Profits. (1949)
7. Analyse profits. Explain how would you estimate the amount of net profits of a cotton textile mill in India earned by it during a certain period. (1939)

Raj., Inter. Com.

8. Analyse profit and explain how each part is determined. (1948)
9. What do you understand by profits. How far can you justify the payment of profit? (1947S)

Patna, Inter. Com.

10. What do you mean by Profit? Should they be paid? (1949S)

Nagpur, Inter. Arts

11. Profits are said to be normal remuneration of an enterpriser. Do you agree? Give reasons. How are they determined? (1949)
12. Write a note on 'Necessity of profits in economic sense.' (1948)

Nagpur, Inter. Com.

13. Distinguish between Gross Profit and Net Profit. Under what conditions is net profit earned? Give examples. (1948)

Sagar, Inter. Arts

14. Analyse carefully Gross Profits. What are net profits? (1949)
15. "Profit is the rent of ability" Explain this statement and describe how profit is determined. (1949 Supp.)

Sagar, Inter. Com.

16. Distinguish between Gross Profits and Net Profits. (1950)

17. What are the elements included in "Gross Profits". Explain 'Surplus Profits'. Are the latter obtained by marginal organiser ? (1948)

Banaras, Inter. Com.

18. State the distinction between gross profit and net profit. (1949)

19. Define Profits. Distinguish between Net Profits and Gross Profits. Why do profits arise ? (1946)

Bombay, Inter. Com.

20. Write a note on 'Gross Profits and Pure Profits'. (1948)

Poona, Inter. Com.

21. Distinguish between gross profits, pure profits and windfall profits. When and how far are profits justified ? (1949)

Travancore, Inter.

22. Analyse Profit. Who requires in it the case of joint stock company ? (1943)

Punjab, Inter.

23. Write a note on Gross and Net Profit. (1949)

Delhi, Higher Secondary

24. Show how profits are determined. Is it correct to say that profits do not affect prices ? (1950)

25. Analyse the elements of gross profits. What are pure and net profits ? (1950)

SCOPE FOR ENTERPRISE IN INDIA

For the sake of prestige and out of fear what might happen during war time, most Governments now desire, whatever the cost and however great the natural handicaps, to produce within their own territory as many as possible of the commodities produced more easily elsewhere.....The progress of technology had made it possible for Governments to fulfil such wishes, at any rate to a considerable extent, in practice.—*Aldous Huxley*

In India, enterprise has been very scarce in recent times. Our productive resources are extremely rich. (A) *Natural Resources*. Nature has been bountiful in her gifts to this country. In her diverse types of climate and variety of soils grow almost all the food product and raw materials sufficient to feed a vast population and to support an extensive industrial structure. In the bowels of earth lie hidden vast quantities of metals and minerals which are our caviable national assets. We have rich forests and plentiful fisheries. (B) *Labour*. India is one of the most thickly populated countries in the world and possesses immense human labour. Since the standard of living is not high, wages are low. Of course, Indian labourers are not skilled since they do not receive any general or specialized training. But their mind is active and they soon understand the work which is assigned to, them. Consequently, in a properly organised economy of the country, labour difficulties will not be serious. (C) *Capital*. Our capital resources are increasing rapidly. We have been importing gold from times immemorial, which has remained in the country. It is only in recent years that we have exported some of our gold. Naturally, therefore, much of this gold must be within the country. If our capital resources are not huge, it is due to the fact that a large part of our gold is kept in the shape of hoards and not converted into the capital by its application to productive purposes. But under the spell of attractive rates of interest, systematic and vigorous propaganda and spread of education, a large part of this gold may one day be turned into capital and there may not be any dearth of it. (D) *Organization*. In our country few people possess organizing ability. We have to import foreign personnel for our managerial staff. But Indians are going abroad for receiving training and experience in this branch and conditions might improve in course of time. (E) *Enterprise*. Though all other factors of production are plentiful in our country, still our production is negligible and the majority of the population is poor. We are thus starving amidst plenty. An important reason of this is that there is scarcity of enterprise in this country.

forward to take the risk involved in productive processes, our national dividend will go up and the income per head will rise along with it.

Reasons For Lack of Enterprise

Lack of enterprise is generally ascribed to the cowardice of our people which makes them afraid of undertaking a business risk. This allegation was very true in the past but it has now lost much of its force. As a matter of fact, whenever businessmen are sure of a sympathetic state attitude with regard to any new and profitable business line, plenty of enterprise appears in the field. For instance, as soon as protection was granted to the sugar industry in 1932, mills after mills were started and within the short span of three or four years, the country became almost self-sufficient in sugar.

During the period of the British Rule in India, the policy of the State was unsympathetic towards industrialisation. Whenever an entrepreneur started a new venture, he had to encounter all sorts of difficulties. The economic history of the world clearly shows that the economic advancement of a country cannot take place without active assistance on the part of the State. During the British Period, far from rendering any assistance, the Government used to put obstacles in the way of economic progress. This was the main reason why enterprise was not forthcoming in a large measure in the country. It is, indeed, a pleasant surprise that so much industrial progress still took place, in the teeth of opposition, official and non-official.

India became free on August 15, 1947; but during the 5 years that have since elapsed, economic progress has not been made. Enterprise in desired measure has not been forthcoming. In the initial period of our freedom, the Government set its teeth against private enterprise and began to hit it by imposing high taxation, holding out threats of nationalisation in season and out of season, encouraging labour to foment labour troubles and giving them increased wages with or without adequate grounds, trying to limit dividend of companies, and so forth. This led to a drop in production. Slowly the Government overcame this early stage of excessive idealism; and recently their policy has shown greater realism than before. Rate of taxation has been reduced; labour policy is not now so openly liberal; and nationalisation policy has become more sensible. Encouraged by these recent developments, Indian enterprise is slowly coming out of the shell to which it had receded immediately after independence.

Scope For Enterprise

Our country is economically backward. No sphere of economic production is satisfactorily or sufficiently developed. The scope

for enterprise is vast in all the fields. A comprehensive survey of the scope in India will cover volumes. We can do here no more than to make a repaid survey. Our discussion falls under the following heads: (i) Scope in Extractive Industries. (ii) Scope in Manufacturing Industries (iii) Scope in Financial Field. (iv) Scope in Transport.

§ I. SCOPE IN EXTRACTIVE INDUSTRIES

Agriculture

India is mainly an agricultural country. The percentage of her population depending upon agriculture is excessive; and the income accruing to cultivators from agriculture is poor. Hence it is generally taken for granted that there is no scope for enterprise in agriculture. Our young men in particular believe that it is barren of any possibilities. This is an entirely wrong notion. Agriculture is at present in the hands of uneducated and poor cultivators and is carried on in very crude ways. If educated men, with capital resources, upto-date scientific knowledge and managerial ability, come in the field, they can make decent profits.

The field for new enterprise lies in three directions: (a) Our cultivators practise very primitive methods of cultivation, partly due to their poverty but more to their ignorance and conservatism. Resourceful and ambitious men have fair field for the application of upto-date knowledge and capital resources in the sphere. (b) Extensive cultivation of land is also possible. New land can be reclaimed by draining marshes and clearing bushes and forests. Proper irrigation is likely to make much level land fertile. Entrepreneurs venturing into this branch will find many profitable avenues of production. (c) The field for intensive cultivation of the western variety is also vast. Our cultivation is not at present mechanized and does not make use of recent advances in agricultural processes brought about by scientists. Large-scale cultivation, use of threshers, motor ploughs, elevators, steam or electric locomotives, etc., is still to come. Pioneers in this field may get chances of earning magnificent rewards.

Forestry

Our forests contain valuable raw materials of various types. Their major and minor produces can support a number of industries. For instance, *bhabar* and *sabai* grasses and bamboos can be used for producing paper. They can also support the lac and rubber industries. Turpentine, rosin and sandalwood are other important products. But due to several reasons, already discussed, our forest industry is undeveloped. There is good scope for enterprise here.

There are various other extractive industries pregnant with great possibilities, e. g., fisheries and mining. Talented men will find ample scope for the application of their energies in these fields.

§ 2. SCOPE IN MANUFACTURING INDUSTRIES

It is in the manufacturing industries, however, that we find the greatest scope for enterprise. Our industries can be divided into two classes: (1) Industries which do not satisfy the national demand fully, and (2) Industries which have foreign markets. In both of these groups there is scope for enterprise.

A. Industries Which Do Not Meet National Demand Fully

Our industrial development being little, there are many industries which satisfy only a fraction of our national demand, the rest being satisfied by imported goods. All such industries can expand at least to the limit of national demand.

(a) *Iron and Steel Industry.* Let us first take the main key industry, i.e., the iron and steel industry. Our iron and steel industry has certainly made appreciable progress, but much room for further development still exists. We still depend almost entirely on foreign countries for all sorts of machinery, hardware goods, etc. The internal demand for steel is of 25 lacs tons but our annual output is only 10 lac tons. We are not importing much steel either. Hence if an entrepreneur applies brain and energy in this branch and achieves success, his reward will be magnificent. The demand for such products is already vast; it is sure to increase with every step taken on the road of industrialisation and mechanisation.

(b) *Chemical Industry.* What is true of the iron and steel industry applies to the chemical industry as well. Unfortunately, our chemical industry is not at all developed and we have to look to other countries for necessary chemicals. Raw materials for the development of this industry exist in our country and other facilities are also not lacking. During the Great War I chemical industry was developed in India to supply the needs of the Allies, but it languished after the war when the Government withdrew its support. In the World War II the industry was again developed and entrepreneurs found it profitable. We hope this progress will continue now.

(c) *Leather.* In the agricultural economy of India, animals play an important part. Consequently, the supply of hides and skins is considerable. In fact, it can support an extensive leather industry. The present leather industry is mostly in the hands of ignorant *chamars*. They export partially tanned or untanned hides and skins to foreign countries where they are scientifically tanned and sent back to us. Sometimes we import even leather goods. This drain of money can be checked if some enterprisers come forward and start leather factories on modern scientific lines.

(e) *Paper Industry.* We also import considerable quantities of paper from abroad. The paper factories already started in India are working successfully, and there is a great scope for many more. Grasses and bamboos from which paper can be made are inexhaustible in supply; the demand for paper is great and is increasing with increase in literacy. It is, as such, an attractive line for the application of enterprise.

(f) *Others.* The above industries by no means exhaust the list. There is a large number of similar industries which have not yet extended to the limit of national self-sufficiency and where the scope for enterprise is great.

B. Industries Exporting Goods Abroad

(a) *Cotton Textile Industry.* Among the industries which have foreign markets, the industry which deserves the first place is the cotton textile industry. This is the most important industry in India and it has created foreign markets for its products very recently. In 1950, India exported cotton textile manufactures to the tune of Rs 112 crores. The Government do not allow free export of cloth for the fear that a scarcity of cotton cloth might arise for internal consumption. Obviously there is a good scope for the extension of this industry.

(b) *Jute Industry.* Jute industry is the only industry in India, which is mainly dependent upon foreign markets. Before Partition we used to export both raw and manufactured jute in large quantities. But after the division of the country, most of the jute-growing tracts went over to Pakistan but most of the jute mills are in India. This has created a new situation. We now import raw jute and export jute manufactures. We have discussed this industry in detail in Chapter 38 to which reference may be made.

(c) *Sugar Industry.* The total output of sugar in India was 10 lac tons; and this was our internal demand as well. But recently the output of sugar has increased to such an extent that sugar has been de-rationed; and export of sugar has begun to take place. This is an industry in which a considerable room for enterprise has recently arisen.

§ 3. SCOPE IN FINANCIAL LINES

Financial businesses also furnish fair scope for enterprise. Of these insurance and banking are important.

Insurance

Insurance is becoming widely popular in this country and is likely to increase as people come to realise the value of insurance. At present out of the 379 insurance companies working in India, of which 232 are constituted in this country and the rest, abroad. Indian entrepreneurs can displace foreign concerns from this field. Again,

as the demand for insurance is increasing rapidly, they can set up new offices to meet this demand. Finally, some Indian life offices have extended their operations outside India mostly in British East Africa, Ceylon and Straits Settlement. Foreign markets can be exploited still further.

Banking

In banking again the scope for enterprise is great. Our foreign exchange business is almost entirely in the hands of foreign banks. There is not a single leading Indian exchange bank. The Central Bank of India once started one but the cut-throat competition of the foreign banks suffocated it. Apart from foreign exchange business, we do not have industrial banks and land mortgage banks. Even in commercial banking there is field for further extension. Our country is very poorly supplied with banks and the scope for enterprise in this branch is definitely great.

§ 4. SCOPE IN TRANSPORT

Railways

We are not well supplied with facilities for transport. Even the railways, which are the most important means of transport, are inadequate. The interior of the country is not connected with any important railway station from market unless it be by *kutchra* road. The scope for enterprise in this line is great.

Motor Transport

The urgency of more railways has been reduced due to the increase in motor transport. Motor transport has recently become important. The scope for its extension is vast since it can serve as a cheap and efficient link between far-flung hamlets and busy towns. It can aid the exploitation of natural resources and the distribution of goods amongst consumers. As such, scope for motor transport is great. The manufacture of motor vehicles is equally profitable.

Ocean Transport

In the oceanic transport Indian enterprise is lacking to a deplorable degree, mainly due to the apathetic attitude of the Government during British Period. In 1924, only 13 p. c. of the Indian coastal trade and $\frac{1}{2}$ p. c. of the foreign oceanic trade of India was conducted by Indian ships. The share of Indian ships in the coastal trade has now increased to 25 per cent; but condition is not much better. Considerable scope for enterprise still exists. Government should assist the growth of our shipping industry. Most of the countries of the world maritime reserve coastal shipping to national ships. The Mercantile Marine Committee of 1923 recommended the same for India but this recommendation was not accepted by the Government. Given proper help and Government support, this industry is bound to develop in our country.

QUESTIONS

1. 'India is rich in productive resources but her people are poor'. Amplify this statement. Why is it so?
2. Why is enterprise shy in this country? Discuss fully.
3. What is the scope for enterprise in this country? Discuss fully.
4. What is the scope for enterprise in the manufacturing industries in India?
5. Is there much scope for enterprise in extractive industries, financial lines, and in transport in this country?

EXAMINATION QUESTIONS

U. P., Int. Arts

1. What are the occupations in which, in your opinion, there are good chances of making profits? Why? (1950)
2. What do you understand by profits? Has there been any extension of the field for enterprise in India in recent times? Illustrate your answer. (1941)
3. Why is the payment of profits necessary in the economic system of today?

"The field for enterprise is vast in India, but the enterprise has been and is slow in appearing". Why has this been the case? How would you remedy the situation? (1932)

Raj., Int. Arts

4. How are profits determined? What are the fields in India open for business enterprise? (1934)

Public Finance

Book VI

Chapter 66-69

CHAPTER 66

PUBLIC FINANCE AND TAXATION

Public Finance is concerned with the income and expenditure of public authorities, and with the adjustment of the one to the other.—*Hugh Dalton*.

§ 1. DIVISIONS OF PUBLIC FINANCE

Meaning of Public Finance

In every developed society, some form of Government organization exists. Government has certain functions and duties to perform. These functions are either *necessary* or *optional*. The defence of the country against foreign aggressor, the maintenance of peace within the country and the enforcement of law for the punishment of evil-doers are *necessary functions*. The *optional functions* of a Government are those functions which a Government is pre-eminently suited to perform by virtue of its position as a central body and a large capitalist. It may provide a good currency and a uniform system of weights and measures, good roads and railways and efficient post and telegraph offices. The more a Government plays the *role* of an educator, the more numerous its optional functions tend to become. All these functions involve expenditure, to meet which Government needs money. Therefore, it has to raise revenue. The science which studies the wealth-getting and wealth-spending activities of the State is known as Public Finance. As Findlay Shirras puts it, Public Finance is the science which is concerned with the manner in which authorities obtain their income and spend it.¹

Divisions of Public Finance

Public Expenditure and *Public Revenue* are the two obvious branches of Public Finance. Sometimes the income of the State falls

¹Findlay Shirras, *The Science of Public Finance*, Vol. I.

short of its revenue, and the Government has to borrow money. The problem of *Public Debt* is so important that it is studied as a separate branch of Public Finance. Finally, the financial administration, involving the framing of budgets, auditing and the like, has also got to be studied. *Financial Administration* emerges as the fourth branch of Public Finance. Public Revenue, Public Expenditure, Public Debt and Financial Administration are, then, the four divisions of Public Finance.

Public Expenditure

Scant attention was paid to Public Expenditure up to 19th century. It was only recently when increase in population, prices, standard of living and frequency and expenses of wars increased public expenditure enormously that it began to be studied as a separate branch of Public Finance.

Public and Private Expenditure. The reader will appreciate certain significant differences between public and private expenditure. Firstly, the income of a private individual is usually, more or less, fixed and he has to adjust his expenditure to it. The State, on the other hand, first finds out the probable expenditure of the coming year and then adjusts its income to it. Secondly, a private individual regards a surplus of income over expenditure as a mark of wisdom, for that helps him in the proverbial "rainy day". But, in Public Finance, a surplus is considered to be bad since it shows that people have been taxed unnecessarily and also because a surplus makes State officials wasteful. The ideal to be achieved by a finance minister is a small deficit which makes State officials careful in spending money. Thirdly, public expenditure is of a compulsory character. For instance, expenditure on defence must be incurred and interest on debt must be paid. But in private expenditure, the will of the individual often determines the amounts and directions of its application.

Public Revenue

Writers on Public Finance have divided Public Revenue in a variety of ways. Without going in detail, we may point out the main sources of revenue of the modern State which are as under :

(1) *Public Domain.* Government is the direct owner of certain land, forests and mines ; and receives a revenue therefrom.

(2) *Fines and Gifts.* Sometimes the State charges a penalty from the offenders of law. These fines are not levied primarily with the object of deriving a revenue. Nevertheless, they are as good as any other source of income. Sometimes some rich persons voluntarily give some donations to the State for humanitarian objects.

(3) *Rate or Price.* The modern State carries on certain enterprises like post offices, railways, etc. The price paid by the purchasers of the goods or services sold by these enterprises, is a source of income of the State. When you buy a post-card, you pay nine pices as its price. A rate or price has been defined as a payment made by an individual for a service or commodity sold by the Government.

(4) *Taxes, Fees and Assessments.* The above sources of income do not yield sufficient revenue. The main sources of income of the State are taxes, fees and special assessments.

A *tax* is "a compulsory contribution to the Government to defray the expenses incurred in the common interest of all, without reference to special benefit conferred." Tax differs from price in the sense that, firstly, tax is compulsory while price is voluntary, and, secondly, the payer of price is directly benefited while the tax-payer may not be benefited directly and proportionately. For instance, if a rich man pays Rs. 5,000 per month as tax, he might get only a little benefit in return in the shape of security of life and property; while the rest of the money might be spent by the State on the improvement of the "slums"; but if he purchases ten envelopes, he receives full value for what he pays. As Prof. Taussig puts it, "the essence of a tax is the absence of a direct *quid pro quo* between the tax-payer and public authority." We sometimes pay *fee* to the State, e. g., court-fees and stamp fees. Fee has been defined as a payment to defray the cost of each recurring service undertaken by the State primarily in the public interest but conferring a measurably special advantage on the fee-payer.

Sometimes an improvement is effected by the State in the public interest but those who benefit by it are charged in proportion to the benefit conferred. For instance, a road might be improved and the expenses collected in the shape of *special assessments* from those who directly benefit by it. It is American in its origin and application. It has been defined as a compulsory contribution levied in proportion to the special benefit derived to defray the cost of public improvement to property undertaken in the public interest.

§ 2. CANONS OR PRINCIPLES OF TAXATION

Taxation is considered to be the most important part of the Science of Public Finance. Taxation is one of the sources of income of the Government and its study is thus merely a part of the whole science.

The qualities desirable in a system of taxation have been embodied by Adam Smith in four canons or principles.² Sub-

²Adam Smith, *Wealth of Nations*, Book II, Chap. II, Sec. 2.

sequent writers have generally followed and adopted them and they have now become classical. They are stated below :

(1) *Principle of Equality or Equity.* "The subjects of every State ought to contribute to the support of Government, as nearly as possible, in proportion to their respective abilities, *i. e.*, in proportion to the revenue which they respectively enjoy under the protection of the State. In the observation or neglect of this maxim consists what is called the equality of taxation."

This principle, known as the principle of equity, discusses the lines of levying taxes equitably. It is generally agreed upon that contributions collected by the State from its members should be such as to inflict equal sacrifice on each of them. According to Adam Smith, principle of equal sacrifice will be put into practice if taxes are collected in proportion to the incomes of the members of the State. Such taxation is known as Proportional Taxation. Adam Smith finds probably few followers today. Modern economists generally maintain that equality of sacrifice can be brought about if the rich pay more than proportionately to their income and the poor less than proportionately. Such taxation is known as Progressive Taxation : and is coming widely into popularity.

(2) *Principle of Certainty.* The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor and to every other person. This statement is so clearly worded as to require no explanation. Certainty implies absence of speculation in the finance of the State and the discouragement of arbitrary exactions on the part of tax-gatherers.³

(3) *Principle of Convenience.* "Every tax ought to be levied at the time or in the manner, in which it is most likely to be convenient for the contributor to pay it. A tax upon the rent of land or houses payable at the same time at which such rents are usually paid, is levied at a time when it is most likely to be convenient for the contributor to pay ; or when he is most likely to have wherewithal to pay. The greater the convenience to the tax-payer, the less the time and resources involved in the collection and payment of taxes. Taxes on commodities, called indirect taxes, are very convenient since they are paid by the consumer in a manner that is convenient to him. He pays them little by little as he has occasion to buy goods.

³Adam Smith wrote, "The certainty of what individual ought to pay is, in taxation, a matter of so great importance, that a very considerable degree of inequality, it appears, I believe from the experience of all nations, is not near so ainty."

(4) *Principle of Economy.* "Every tax ought to be so contrived as to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the State." This principle means that those taxes should be given preference whose cost of collection is less in proportion to their yield and which cause least injury to the economic interest of the tax-payers. For instance, if the collection of a tax requires the services of an army of collectors whose activities cause the tax-payers to stop business for some time, the cost incurred by the State and the injury inflicted on the tax-payers will be so great as to constitute a flagrant violation of the principle of economy.

Modern Additions to the Above Principles. Modern writers have added three more principles to the above four Adam Smithian principles of taxation.

(5) *Principle of Productivity.* This principle requires that a tax should be productive of handsome yield. The imposition of several taxes yielding small proceeds cause great vexation and inconvenience. It is better to impose only one tax which can produce large return.

(6) *Principle of Elasticity.* An ideal system of taxation should consist of some taxes whose income might automatically increase in wealth and population, or can be made to increase to meet sudden or exceptional demand for revenue without necessitating considerable increase in the cost of collection. Income tax is an ideal tax from this point of view.

(7) *Principle of Simplicity.* A system of taxation should be simple, plain and intelligible to the masses.

§ 3. DIRECT AND INDIRECT TAXES

Meaning

Taxes are either direct or indirect. "A direct tax is one which is demanded from the very persons who, it is intended, or desired, should pay it." Income-tax is a direct tax; it is collected from persons earning incomes beyond a certain minimum, and they cannot pass it on to others. Similarly inheritance tax is collected from the inheritor at the time the property is inherited, and he cannot shift it on to anybody else.

Indirect taxes are those which are demanded from one person in the expectation and intention that he shall indemnify himself at the expense of another.⁴ For instance, when an importer imports sugar or cigarettes he is charged import duty. It is not intended that he himself will bear its burden, but that he will recover the amount so paid from consumers by means of an advance in price.

⁴J. S. Mill, *Principles of Political Economy*, Bk. V. Ch. 3, § 3.

Sometimes a direct tax is passed on to other persons. For instance, a businessman paying income-tax may enhance the prices of goods sold by him with a view to recover the amount paid as tax. But this will not make it an indirect tax. It is the intention of levying the tax which decides whether it is direct or indirect; and in the present case the intention was that the tax-payer should bear its burden.

The Advantages of Direct Taxes

The advantages of direct taxes, like income tax, inheritance tax, land tax, etc., are the following: (1) *They are economical.* A direct tax is paid by the ultimate tax-payers to the State; as such the cost of collection is small. (2) *They are certain.* The tax-payer knows what exactly he has to pay and the State authorities know what they have actually to receive. (3) *They are equitable.* The person on whom the burden finally falls can be generally definitely ascertained and the rate of payment easily proportioned so as to equalise sacrifice. (4) *They are elastic.* Direct taxes can be easily increased to meet the emergent demand on the State purse. Moreover, their proceeds automatically increase as wealth and population increase. The various adjustments and amendments made in the Indian Income-Tax Act to suit the varying needs of the Government illustrate this point fairly well. (5) *They arouse civic consciousness.* When a man pays direct taxes, he feels that he is contributing something towards the maintenance of the State and he naturally tries to understand whether his money is being properly utilised or not.

The Disadvantages of Direct Taxes

(1) *They are sometimes very inconvenient.* For instance, an income-tax-payer has to keep an elaborate system of accounts to suit the whims of tax-gatherers and to fill up a detailed statement, both of which cause considerable inconvenience. Sometimes the time of payment is also unsuitable. (2) *They are tried to be evaded.* An income-tax-payer, in order to escape taxation, gives wrong statements. Such cases arise almost every day. Direct taxes have, therefore, been called taxes on honesty. (3) The basis of assessment is arbitrary and, therefore, the likelihood of doing injustice to certain sections of community is great.

The Advantages of Indirect Taxes

Indirect taxes possess the following advantages: (1) *They are very convenient.* They are mixed up with the prices of commodities and the purchasers do not feel that they are paying any tax. Moreover, the tax is paid little by little as purchases are made. Finally, as the consumer is at liberty either to buy or not to buy, as he pleases, it must be his own fault if he ever suffers any considerable

inconveniences from such taxes. (2) *They can be collected from even the proper sections of community.* It is a principle of statecraft that each member of the State should pay something, however little, towards the maintenance of the State. It is generally the indirect taxes which make it possible. (3) *Some of them are elastic.* Taxes levied on articles of necessities are very elastic : since the demand for such articles remains almost the same in spite of an increase in price due to the imposition of an extra tax, the yield increases if the rate of tax is pushed up. But if the elasticity of demand for the article taxed is great, an increase in tax is accompanied with a fall in the yield. (4) *They cannot be easily evaded.* Because they are included in the price of articles which cannot be had unless the price is paid, their evasion is not possible. (5) Sometimes they are levied on intoxicating liquors and drugs and similar articles and *do a distinct social service* by restricting their consumption.

The Disadvantages of Indirect Taxes

(1) *They are inequitable.* The rich or the poor, whoever purchases the article, has to pay the same price. As such, the poor have to make greater sacrifice than the rich. (2) *They are uneconomical.* Usually some middlemen intervene between the ultimate tax-payer and the State, and they can easily increase the price of the goods taxed beyond what is justified by the rate of the tax. (3) Since the payer of indirect taxes does not feel that he is paying a tax, his *civic consciousness is not stimulated* and he is not led to take a keen interest in the matters of the State. (4) *These taxes are uncertain.* The actual extent of consumption and, therefore, the ultimate yield, cannot be definitely anticipated. (5) As shown above, some indirect taxes are *inelastic*.

Direct Taxes *versus* Indirect Taxes

Sometimes the advantages and disadvantages of direct and indirect taxes are compared in order to find out which is the better of the two. Such attempts are not of much practical value. Each of them has advantages and disadvantages and they cannot be weighed in the balance to draw definite conclusion in favour or against either of them. In any taxation system, both kinds of taxes must be present ; they are like the two legs of a man each of which is necessary for walking. In the famous words of Gladstone, they are like two attractive sisters and it is the duty of every finance minister to pay his respects to both of them.

The Case of India. The quest becomes a proper one if it is posed in a slightly different way. We may well ask : Should a particular country impose direct or indirect taxes to increase the State revenue equitably or to make the taxation system just ? The answer will naturally depend upon the conditions prevailing in each country.

Let us take the case of India. Our tax system is not well balanced. It relies unduly upon indirect taxes, mainly because they are not felt by the payers. Indirect taxes, as already said, fall more severely on the poor than on the rich. Most of our important sources of income are indirect taxes like excise duties, customs duties, etc. The only important direct tax is income-tax. Consequently, in order to make our system well balanced and ethically just, more direct taxes should be introduced.

TEST QUESTIONS

1. Explain the meaning of Public Finance. What are the divisions of this science ?
2. Compare the public and private expenditure. Discuss the chief sources of public revenue.
3. What are the canons or principles of taxation ? Explain fully.
4. Distinguish between direct and indirect taxes. Discuss the advantages and disadvantages of each.
5. Compare the advantages and disadvantages of direct and indirect taxes. Which of them is better than the other ? Discuss with special reference to India.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. Write a note on Direct and Indirect Taxes. (1952, 1950, 1948)
2. Clearly point out the merits and demerits of direct taxes. (1943)
3. Write short notes on (a) direct taxation ; (b) excise duties ; (c) customs duties ; (d) octroi duties ; and (e) salt-tax. (1942)
4. Discuss the merits and demerits of any four of the following taxes : (a) salt-tax, (b) an excise duty on sugar, (c) cycle-tax, (d) income-tax, (e) an octroi duty, (f) entertainment taxes and (g) inheritance tax. (1939)

U. P., Inter. Ag.

5. Explain the principles of taxation. Are those principles followed in India ? (1950)

Patna, Inter. Arts

6. How do you distinguish Direct Taxes from Indirect Taxes ? Discuss their relative merits. (1949A)
7. What are the canons of taxation ? How far can you justify the salt-tax in India ? (1947S)
8. Discuss the relative merits of direct and indirect taxes. (1945A)

Banaras, Inter. Com.

9. Point out the difference between direct and indirect taxes and explain the advantages of each. (1948)

10. Explain very briefly the advantages and disadvantages of direct and indirect taxes. Illustrate with reference to taxes existing in India. (1947)

Nagpur, Inter. Arts

11. Explain the canon of equality in taxation. How far does it apply to the Indian income tax ? (1948)

12. Explain clearly with examples the main characteristics of direct and indirect taxes. Give a list of all the direct taxes in India. Why are direct taxes unpopular ? (1947)

Nagpur, Inter. Com.

13. Describe Adam Smith's Canons of Taxation. How far does India follow these canons ? (1948)

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15. What are the direct and indirect taxes ? Give their merits and demerits. (1949)

16. Describe chief principles of taxation. (1949Sup.)

17. Explain clearly Adam Smith's Canons of Taxation. (1948)

Sagar, Inter. Com.

18. Explain what do you understand by direct and indirect taxes and examine their relative merits and demerits. (1949,Supp)

19. State and explain Adam Smith's Canons of Taxation. (1949)

20. What are direct and indirect taxes ? Explain the merits and demerits of each. Name *two* direct and *two* indirect taxes in India. (1948)

Poona, Inter. Arts

21. What is a tax ? Do you think that the rich should pay more in taxes than the poor and why ? (1949)

Andhra, Inter. Arts

22. State and explain Adam Smith's four Canons of Taxation. What are the modern additions to Adam Smith's list ? (1950)

23. What is progressive taxation ? How can it be justified with reference to the canon of equity ? (1944)

Travancore, Inter.

24. What are the chief canons of taxation ? In the light of these principles examine the salt tax and income tax in India. (1943)

25. Distinguish between direct and indirect taxes. Discuss the advantages and disadvantages of each. (1943)

Punjab, Inter.

26. Discuss the principles of taxation. What are the dangers of ignoring these principles ? (1951)

27. What are the advantages and disadvantages of direct taxes ? Is sales tax a direct or an indirect tax ? (1950)

28. Distinguish between direct and indirect taxes. Which would you advocate for raising enough revenue ? (1949)

29. Write a note on a good tax system (1949)

Let us take the case of India. Our tax system is not well balanced. It relies unduly upon indirect taxes, mainly because they are not felt by the payers. Indirect taxes, as already said, fall more severely on the poor than on the rich. Most of our important sources of income are indirect taxes like excise duties, customs duties, etc. The only important direct tax is income-tax. Consequently, in order to make our system well balanced and ethically just, more direct taxes should be introduced.

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CENTRAL FINANCE IN INDIA

We do not object to the fire being kept up, but to the absence of any cooking pot over it. And when the cost of the blaze becomes so exorbitant as to leave nothing over to fill the pot with, then, if in answer to the tears which spring from the gnawing emptiness within, the question is thundered against us. "Are we not, then, to light up your hearth?", we have to falter back, "Yes, yes no doubt, but not for our cremation, please."—*Rabindra Nath Tagore* (On Defence Expenditure).

§ 1. INDIAN PUBLIC FINANCE

Public finance in India can be divided into three classes : (i) the finance of the Government of India, which is known as the Central Finance ; (ii) the finance of State Governments, which is called State Finance ; and (iii) the finance of Local Bodies like Municipalities and District Boards, which bears the designation of Local Finance.

The most noticeable trend in the public finance of India in recent times has been a considerable increase in revenue and expenditure. In 1938-39 (*i. e.*, before the World War II), the income and expenditure of the Government of India was of the order of Rs 85 crores and of the State Governments of the order of about Rs 80 crores. But in 1951-52 these figures shot up to Rs 400 crores and Rs 300 crores respectively.* In other words, the income and expenditure of the Governments in India have increased about four times as compared to pre-war period. The table below makes it clear :

Income and Expenditure of Governments in India
(In crores of Rupees)

	1938-39			1951-52		
	Income	Expenditure	Surplus (+) or Deficit (-)	Income	Expenditure	Surplus (+) or Deficit (-)
Government of India	84.5	85.1	- 0.6	401.9	375.8	+ 26.1
State Governments	79.4	80.5	- 1.1	308.8	311.6	- 2.8
Total	163.9	165.6	- 1.7	710.7	687.4	+ 23.3

*This refers to Part I States only.

The most important cause of this considerable change has been the World War II which was responsible for very great increase in governmental expenditure in India as in other countries. During the war period and the post-war period, the price level registered great heights and it increased the public expenditure. Besides this, India became free in 1947 and Pakistan became a separate country. This also created a lasting effect on the public finance of this country.

We will now show the financial position of the States of India in the table given below:

Finance of States in India, 1951-52

(In crores of Rupees)

State	Income	Expenditure	Surplus (+) Deficit (-)
1. Bombay ...	60.6	60.6	—
2. Uttar Pradesh ...	61.3	61.5	—0.2
3. Madras ...	59.6	60.3	—0.7
4. West Bengal ...	34.0	38.8	—4.8
5. Bihar ...	36.0	31.1	+4.8
6. Madhya Pradesh ...	20.4	20.3	+0.1
7. Punjab (I) ...	16.6	16.8	—0.2
8. Orissa ...	10.6	11.5	—0.9
9. Assam ...	9.6	10.6	—1.0

In the next table given below, the important details of the 1951-52 budget of the Government of India are mentioned:

Government of India Budget, 1951-52

Income	Rs. (crores)	Expenditure	Rs. (crores)
Customs Duties ...	156.0	Direct Demands on Revenue ...	14.4
Central Excise ...	79.6	Debt Services ...	37.3
Corporation Tax ...	32.7	Civil Administration ...	54.3
Income-tax ...	132.2	Currency and Mint ...	2.6
Currency and Mint ...	12.3	Civil Works, etc. ...	13.3
Railways ...	7.3	Miscellaneous ...	44.6
Post and Telegraph ...	2.3	Defence Services ...	180.0
		Contributions and Adjustments between Central & State Governments ...	15.4
		Extraordinary Items ...	13.6
		Total Expenses ...	375.8
		Surplus ...	26.1
Rs.	401.9 †	Rs.	401.9

† In the tax-revenue, the share of the States is included.

§ 2. SOURCES OF CENTRAL REVENUE

The following is an account of the chief heads of revenue of the Government of India :

(1) *Customs Duties.* Taxes on duties levied on the goods exported from or imported into a country are known as customs duties. A list of such duties is known as tariff. The duties levied on imports are known as *import duties* and those levied on export, *export duties*.

Customs duties used to bring to the Government of India before the World War II about 55 crores of rupees ; and they constituted a little less than 50 p. c. of the entire revenue of the Central Government. But now, even after the formation of Pakistan, the Government of India got Rs 156 cr. from this source in 1951-52, which was 1/3 rd of total revenue.

Before the First Great War, our tariff policy was based on *free trade theory*, i. e., the policy of allowing free imports and exports without imposing prohibitive export and import duties. The customs duties, such as they were, were fairly low and were not intended to check foreign trade but simply to collect revenue. Such duties were called revenue duties. During and after this war, the Government were in need of funds and these duties were considerably increased. Still later, the Government changed their tariff policy from free trade to protectionism, i. e., the policy of protecting Indian industries by imposing heavy duties on competitive imports. Such duties are known as protective duties. The adoption of this policy increased import duties on several commodities fairly high and the customs revenue increased.

Customs duties may be *ad valorem* or *specific*. *Ad valorem* duties are charged according to the value of the goods and are often expressed as a percentage of their price. Specific duties, on the other hand, are fixed charges calculated according to the number, volume, weight or measure of the commodity. Most of the duties in India are *ad valorem*.

(2) *Income-Tax.* Income-tax is the next important source of income. Before the World War I, it used to bring a revenue of Rs 15 to Rs 20 crores per year. But now, even after the formation of Pakistan, it brought Rs 132.2 crores in 1951-52. Income-tax is levied on incomes crossing a certain limit. It was first introduced in India in 1860 under the financial stringency caused by the Mutiny. Since then it has had a very long and chequered history.

The rates charged at the present time are as follows¹ :—

¹In addition to this, there is a super-tax. There is no super-tax up to Rs 25,00. of one's income. On additional Rs 15,000 of income, the rate of super-tax is 3as0 per rupee. On higher incomes, the rate is even higher.

		Rate per Rupee
Less than	Rs. 1,500	Nil
Rs. 1,500 to	Rs. 5,000	9 pies
Rs. 5,000 to	Rs. 10,000	1 anna, 9 pies
Rs. 10,000 to	Rs. 15,000	3 annas
On the balance of total income		4 annas

Income-tax is a direct tax and, as such, it has the merits and demerits of such taxes. Generally speaking, its *advantages* are that it can be equitably levied since its incidence can be definitely known. Again, it is elastic, its yield increasing with little manipulation or with an increase in the wealth and population. It is also certain and economical and arouses civic consciousness. Its *demerits* are also obvious. It is a tax on honesty and attempts are often made to evade it by keeping false accounts and otherwise. It is also inconvenient as the filling up of forms and the maintenance of proper accounts involve trouble. It is not paid by the poor sects of communities; and if the rates are increased very much, it discourages savings.

The main points of criticism of the Indian Income-Tax in its present shape are that it does not take into account the size of the family; and it unjustly exempts agricultural income from its scope.

(3) *Salt Tax*. The salt revenue was inherited by the Britishers from their predecessors. Before the World War II, it used to produce an annual yield of about 8 crores of rupees. But salt tax was the most unpopular tax in India. The people resented it very much, so much so that Mahatma Gandhi made the non-payment of salt tax on the manufacture of salt a core of his civil disobedience movement. When India became free, the Government of India took steps to abolish this tax. No licence is now needed to manufacture salt nor has any tax to be paid on it.

It was criticised on the following grounds : (i) Salt is necessary for existence, and in principle it is bad to tax a necessity. This tax had the evil effect of decreasing the consumption of salt by people and cattle, which told upon their health. (ii) This tax had to be paid by the poorest, whose poverty made it very burdensome. It became all the more harsh because they had to pay a number of other taxes as well. Like the last straw that breaks the camel's back, it was breaking the back of the poor cultivators. (iii) This tax was inequitable. The poor consume more salt than the rich and had to pay a larger amount : (iv) Finally, there was the consideration that the tax was being levied against the express wish of the people and was, therefore, bad.

Government of India long adhered to this tax on various grounds : (1) This tax was the only means of reaching the masses of

the country, so poor as ours. Sound administration required that every member of the State should contribute something towards its upkeep. (2) It was an indirect tax and was, therefore, not felt by the people. (3) It was an old tax and an old tax is no tax, since by sheer habit people cease to think of it as a hardship. (2) Finally, the burden per head of this tax was very small. Eight crores of rupees was collected from 35 crores of people, the average coming to nearly 3 annas per head. (5) Government could not afford to lose this sum in the days of financial stringency.

(4) *Opium*. The production and sale of opium has been the monopoly of the Government from very olden times. Formerly, opium was exported in large quantities to China and was a source of income of about 25 crores of rupees per year. But later exports to China were stopped. In 1908 a section of the British public did not think it proper for the Indian Government to make profit at the expense of the morals of the Chinese people and the Government of India in that year undertook to reduce gradually the exports of opium to China, to become finally extinct in 1917. The export of opium, except for medicinal or experimental purposes, has now stopped. Income from this source has now fallen to a few crores of rupees only.

(5) *Excise Duties on Sugar and Matches*. Excise duties are imposed on the production of certain goods within the country. Dr. Johnson described excise as "a hateful tax on commodities", a description which suits them very well, though not in all cases. The Government of India have imposed excise duties on the production of various commodities within the country from time to time and have been severely criticised for their action. Once they levied excise duty on cotton manufactures which aroused much opposition and had to be ultimately withdrawn. At present, there are two important excise duties on matches and sugar. In 1951-2, the Government of India obtained Rs 79.6 crores from this source.

(6) *State Enterprises*. Government also derive revenue from their enterprises like railways, and posts and telegraphs. In 1951-52, the Government of India made a profit of (Rs 12.3 - Rs 2.6 =) 9.7 crores from currency and mint; of Rs 2.3 cr. from post and telegraph; and of Rs 7.3 cr. from railways.

§ 3. HEADS OF CENTRAL EXPENDITURE

The chief items of expenditure of the Government of India are given below :

(i) *Defence Services*. In 1951-52 the Government of India budgeted an expenditure of Rs. 180 crores on defence (*i.e.*, military) services. Total expenditure of the Government of India, according to the 1951-52 budget, was Rs. 375.8 crores, out of which Rs. 180 crores was to be spent on defence. In other words, about 50% of the total expenditure of the Government of India is on defence services.

During the British Period also, defence expenditure was colossal. In normal years at that time, about half of the income of the Government of India was spent on military services. This expenditure used to amount to Rs. 50 or 60 crores per annum. Sir Walter Layton observed: "An outstanding feature of the public finance in India is the high proportion ($62\frac{1}{2}$ per cent³) which current expenditure on defence bears to the total expenditure of the Central Government, a higher proportion, in fact, than in any other country in the world. It is more significant even when account is taken of provincial and central finances together: the ratio (31.9 per cent) is still a very high one." Further, observed Sir Walter, "the total is at present so large, both absolutely and in relation to the revenues of India, as to be a dominant factor in financial situation."⁴

Even during the British Period our economists and politicians pressed for a reduction in defence expenditure. So much expenditure on defence for a poor country like India is certainly against her best economic interests. They also used to mention that there was considerable room for economy in this direction without impairing the efficiency of the national defence by such means as reduction in the strength of the British element in the army, basing all salaries on the Indian standard and reduction on the strength of the standing army. But now, after our attaining the much-coveted independence, the situation has undergone a change. The World War II has certainly terminated but the clouds of war are hovering on the horizon. We have to be especially prepared for such an eventuality because now we would have to depend upon our own resources for our defence. At the same time, the defence of Kashmir is still necessary since the Kashmir problem has not yet been resolved. Because of all these reasons, our defence expenditure is rather high and would in all probability continue to be so in near future. We give below defence expenditure incurred by the Government of India in recent years below:

Year	Rs. Crore
1938-39	46
1940-41	73
1941-42	104
1942-43	190
1943-44	262
1944-45	397
1945-46	360
1946-47	238
1947-48	189
1948-49	146
1949-50	149
1950-51	180
1951-52	180

³ This is an old figure.

⁴ See *Simon Commission Report*.

It is clear from these figures that during the World War II, expenditure on military services very much increased. After the war, the expenditure has come down. But it is still quite high.

(2) *Food Subsidy and Rehabilitation of the Displaced Persons.* The formation of Pakistan brought into being two new items of expenditure. We used to import foodgrains even before; but partition of the country meant the transfer of rich wheat-growing tracts to Pakistan. This accentuated the deficiency in food. The Government began purchasing wheat from foreign countries generally at high rates; but it has been selling it to consumers at cheaper rates. This meant a loss of about Rs. 10 crores to the Government of India in 1951-52. This amount is called *Food Subsidy*.⁵ This policy has been now abandoned. Besides this, the displaced persons coming from Pakistan had to be rehabilitated. The Government of India spends about Rs. 10 or 15 crores per year for this purpose.

(3) *State Enterprises.* The Government of India have also to spend on Railways, Posts and Telegraph, Currency and Mint, etc. These items are known as Commercial Services. The Railway Budget is quite separate; and in 1951-52, the Government of India obtained a profit of about Rs. 7.5 crores from them. Posts and telegraph is operated on no-profit and no-loss basis. During 1951-52, the profit from this source was only a nominal one, namely, Rs. 2.3 crores. During the same year, the Government spent Rs. 2.6 crores on Currency and Mint; and their profit from this source was Rs. 12.3 crores.

(4) *Debt Services.* On the debts taken by the Government of India, they have to make annual payment of interest as well as make a contribution to the sinking fund every year with a view to their ultimate repayment. During 1951-52, the Government spent Rs. 37 crores on this head. Before the World War II, the amount spent on debt services was about Rs. 15 crores per annum, which came to about 10% of the total expenditure of the Government of India. Our present-day expenditure seems to be rather heavy, but it is not a matter of concern because most of our debt is productive; and as such income therefrom exceeds the annual interest and sinking fund charges.

(5) *Civil Administration.* Before the World War II, annual expenditure on civil administration amounted to approximately Rs. 8 crores. This item used to include jails, police, courts, etc. But after India became free, this item of expenditure considerably increased. During 1951-52, the amount spent on it came to Rs. 54.3 crores. This comes to about 1/3rd of the total expenditure on civilian pur-

⁵This is included in Civil Administration.

poses. During the British Period, it was felt that the amount spent on civil administration was very heavy. But after the country attained freedom, this expenditure has become still heavier. This is probably because freedom has imposed on us fresh responsibilities and also because our level of administration is not yet quite high and efficient.

(6) *Nation-Building Expenditure.* The expenditure on education, medicines and public health, agriculture, industries, etc., is collectively called Nation-Building Expenditure. During the British Period, the amount spent on this head was very low—only about Rs. 2 or 3 crores per annum. On civil administration alone, the amount was about 4 times this figure. After the attainment of freedom, the Government have been giving more attention to these matters. In 1951-52, a sum of Rs. 13 crores was budgeted for this purpose. Besides, a separate sum of about Rs. 3 crores has been kept for development, etc.

(7) *Direct Demand on Revenues.* They consist of the expenditure incurred in the collection of revenues. In 1951-52, a sum of Rs. 14 crores was budgeted for this purpose. This expenditure is unavoidable, but maximum economy should be practised in this direction.

TEST QUESTIONS

1. Give an idea as to the divisions and extent of each division of Public Finance in India.
2. Discuss the principal heads of revenue of the Government of India and comment on each of them.
3. Discuss the principal heads of expenditure of the Government of India and comment on each of them.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. Give an account of the chief sources of revenue and items of expenditure of the Government of India. (1950)
2. What are the important heads of revenue and expenditure of the Government of India. Suggest proper ways of improvement in this regard. (1948, 1946)
3. State with comments the more important sources of revenues of the Government of India and of your District Board. How have such revenues been affected by the war? (1944)
4. What are the sources of revenue of the Government of India? Comment on each item. (1942)

Rajputana, Inter. Arts

5. What are the main heads of income and expenditure of the Government of the Union of India? Comment briefly on each. (1949)
6. Argue for and against the retention of Excise Duties. (1948)

Nagpur, Inter. Arts

7. Enumerate the taxes in India and classify them under direct and indirect taxes. (1949)

Panjab, Inter.

8. Indicate the name of the Government (Central or Provincial) which gets the revenue from the following sources : (a) irrigation, (b) customs duties, (c) Posts and Telegraphs, (d) excise duty on sugar, and (e) excise on alcoholic drinks. (1949)

9. Give three important sources of revenue and three important heads of expenditure of (a) Government of India, and (b) the Government of the East Panjab. How is prohibition likely to affect the budget of the Central and Provincial Governments ? (1949)

10. Mention the chief sources of revenue of the East Panjab Government as compared with those of the Government of India. Is the distinction based on certain economic principles just or haphazard ? (1948)

Delhi, Higher Secondary

11. What are the principal indirect taxes in India ? Which of them are, in your opinion, unfair ? (1951)

12. Write short notes on Indian income-tax and defence expenditure of the Central Government of India. (1949)

13. State chief sources of revenue of the Central Government of India. Should the income-tax revenue, in your opinion, be entirely central under the constitution of India ? Give briefly the reasons for your answer. (1950)

14. Write a short note on the chief sources of revenue and the principal heads of expenditure of the Central Government in India. (1948)

FINANCE OF STATES IN INDIA

Where a tax has been recognised as at once special and definitely fixed, it seems to pass out of the ordinary category of taxes and into that of charges, a transformation only possible in the case of durable productive wealth, and most prominent in respect of land.—*Bastable*.

Under the new Constitution (as under the Act of 1935) states have been given financial autonomy. Certain sources of income have been specifically assigned to them and certain heads of expenditure left to their care. In the division of the sources of income and the items of expenditure between the Government of India and State Governments, favour has been shown to the former. The Government of India have been given elastic sources of income while the items of their expenditure are inelastic. The case of State Governments is just the reverse : their sources of income are land revenue, stamps, forests, etc., which are not likely to increase ; but their expenditure on objects like nation-building departments, irrigation, etc., is ever increasing. Requiring State Governments to finance elastic items of expenditure with inelastic resources, is one of the most fundamental weaknesses of the present Constitution.

§ 1. REVENUE AND EXPENDITURE OF STATE GOVERNMENTS

The following are the chief sources of revenue of State Governments in India : (i) Land Revenue ; (ii) Excise Duties ; (iii) Stamps ; (iv) Forests ; (v) Registration ; (vi) Irrigation ; (vii) Civil Administration ; (viii) Others. The relative importance of these sources differs from State to State.

The heads of expenditure of State Governments in India are given below : (a) Civil Administration ; (b) Public Works ; (c) Direct Demands on Revenue ; (d) Irrigation ; (e) Education and Other Nation-Building Activities.

There are nine Part A States in India. The table below gives figures of their revenue and expenditure for recent years :

Income and Expenditure of Part A States

Income (Rs. cr.)				Expenditure (Rs. cr.)			
Sources of Income	1949-50	1950-51 Revised	1951-52 Budget	Heads of Expenditure	1949-50	1950-51 Revised	1951-52 Budget
1. Income Tax	50.8	50.3	47.8	1. Direct Demand on Revenue ...	24.0	25.5	24.9
2. Sales Tax	46.3	49.3	44.4	2. Irrigation ...	10.9	13.7	14.6
3. Land Revenue	29.1	31.5	39.9	3. Public Debt ...	2.9	2.5	2.8
4. Excise Duty	29.0	25.2	25.0	4. General Administration, Police, etc. ...	89.6	89.4	90.4
5. Stamps	17.3	18.3	18.6	5. Social Services ...	87.1	95.2	96.1
Total Income	291.3	296.6	308.8	Total Expenditure	287.3	302.0	311.6

§ 2. BUDGET OF U. P. GOVERNMENT

The relative importance of the various sources of revenue and heads of expenditure differs from State to State. We give below the 1948-49 budget of the Government of the Uttar Pradesh :

Important Items of Revenue and Expenditure of U. P.
(1948-49 Budget)

Income		Rs. (Lakhs)	Expenditure		Rs. (Lakhs)
Income-Tax	...	7,19	Education	...	5,32
Land Revenue	...	7,73	Direct Demand on		
Irrigation	...	2,08	Revenue (cost of		
Stamps	...	2,13	collection)	...	3,96
Excise	...	6,03	General Administra-		
Forests	...	1,75	tion	...	3,30
Civil works	...	35	Jails and Police	...	7,80
Jails and Police	...	1,04	Irrigation	...	2,02
Education	...	23	Agriculture	...	2,42
Agriculture	...	59	Administration of		
Administration of			Justice	...	1,12
Justice	...	27	Medical and Public		
Industries and			Health	...	2,80
Co-operation	...	56	Industries and Co-		
Registration	...	24	operation	...	1,56
Medical and Public			Civil Works and		
Health	...	22	Roads	...	7,73
Grant from Centre for					
Post-War Develop-					
ment	...	6,25			
Other taxes	...	2,30			
Total Receipts Rs. 45.87			Total Expenses Rs.		
Cr.			50.57 Cr.		

It is clear from the above table that according to the budget estimates for 1948-49, the U. P. Government expected to have an income of Rs. 46 crores and expenditure of Rs. 51 crores, leading to a deficit of Rs. 5 crores. According to the 1951-52 budget of the same Government, the income and expenditure are of the order of Rs. 60 crores approximately.

Income of U. P. Government. The most important source of income of the U. P. Government is the income-tax. This source

yielded an income of Rs. 10 crores in 1949-50. It was levied only on urban incomes, but now it is proposed to be imposed on agricultural incomes as well. The second important source of income is land revenue, which yielded Rs. 7 crores in 1949-50. The third source is the excise duties yielding Rs. 6 crores, which are imposed on the manufacture of intoxicating liquors, toddy, ganja, etc. Sales tax yields Rs. 6 crores. Stamps which are affixed on business documents and are used in the form of court fees yield about Rs. 2 crores per year. The Government get another Rs. 2 crores per year by selling forest fuel, etc., letting grazing grounds and for giving permission for wood cutting. Recently the U. P. Government have also imposed entertainment tax, etc. The Government of India also give some grant to the U. P. Government for developmental purposes. In this way, the total income of the U. P. Government came to Rs. 56 crores in 1948-49.

Expenditure of U. P. Government. Out of this income, a sum of Rs. 19 crores was spent in 1949-50 on administration. Administration includes jails, police, administration of justice, etc. The maintenance of law and order inside the country is the first and foremost object of a government. Hence the expenditure of such a large expenditure on civil administration can be easily understood. The expenditure on police amounts to Rs. 7 crores, on general administration Rs. 5 crores, on administration of justice to Rs. 1 crore and on jails to Rs. 1 crore. The next item on which the U. P. Government spends money is constituted of such things as are calculated to develop the State and give encouragement to education, agriculture and industries. These are called Nation-Building Activities and the U. P. Government spent Rs. 17 crores on them in 1948-49. Out of this Rs. 7 crores were spent on education, Rs. 4 crores on agriculture, Rs. 3 crores on public health etc., and Rs. 1 crore on industries. A sum of Rs. 5 crores was spent on the collection of revenues (direct demand on revenues); and a sum of Rs. 8 crores was used in constructing government buildings, roads, etc. In this way, the total expenditure of the U. P. Government amounted to Rs. 56 crores in 1948-49.

3. CHIEF SOURCES OF STATE REVENUE

Now we will briefly comment on the sources of income of State Governments.

(1) *Land Revenue.* Land revenue had been till very recently the mainstay of the Central Finance. It is now the biggest source of income of the States and is the only source of direct taxation for them. It is important in the U. P., Madhya Pradesh, Punjab; etc., but not in West Bengal where it is fixed for ever. In the U. P. about 45 p. c. of the total revenue used to come at one time

in the shape of land revenue. But now this figure is only 12½%. In 1949-50, the total revenue was Rs. 56 crores and the land revenue was Rs. 7 crores.

Land revenue as a piece of taxation offends against most of the principles of taxation. It is definitely inelastic. In 1913-14, its total yield in India was Rs. 32 crores; in 1936-37 it yielded the same amount while in 1949-50, it declined to Rs. 29 crores. Secondly, it is very inconvenient and rigid. When there is a failure of crops, some relief is certainly given to cultivators by remitting assessments, but it is a hard fact that the rigidity with which land revenue is collected drives a large number of people to the money-lender during bad seasons. Long periods of settlement and the meticulous enquiry by a large staff at the time of settlement cause much inconvenience. Thirdly, it is uneconomic. India possesses the most elaborate revenue survey in the world involving enormous expenditure. Finally, as Dr. Gregory has stated, "the land revenue is essentially a tax on the things and not on person; consequently, it is charged in equal amount whether the payer is rich or poor. As such, it requires more sacrifice on the part of the poor than on the rich".¹

(2) *Excise.* The excise revenue in States is derived from the manufacture and sale of intoxicating liquors and drugs, hemp and opium, and other intoxicants. It is charged in the form of a duty on the manufacture of intoxicants and fees for the licences permitting their sale. There is a growing volume of opinion in the country that high excise duties should be levied so as to do away with the drink habit gradually. The Simon Commission observed that the doctrine of maximum revenue and minimum consumption is the theory generally accepted in the States but it is not always easy to hit this point with precision; and excise revenue is likely to be reduced not merely by prohibition and propaganda but by smuggling and evasion. In recent years excise revenue has rapidly declined. It has decreased still further under the Congress Governments which are committed to the prohibition policy.

Prohibition leads to a reduction in income from this source; this is the reason why the Congress Governments formed in the free India in various States have not wholly adopted this policy. In U. P., total prohibition is in force in Kanpur and Unnao Districts since April 1, 1948; and it was enforced in some other districts later. In Uttar Pradesh, the income from excise duties is about 10% of the total revenue.

¹See *Indian Taxation Enquiry Committee Report*, 1934-35. Vol. 1. Chap. 4.

Income and Expenditure of U. P. Government, 1949-50

(In crores of rupees)

Income	Amount	Expenditure	Amount
Income Tax ...	10.1	Direct Demand, on Re-	
Land Revenue ...	6.6	venue ...	4.9
Sale Tax ...	6.1	Irrigation ...	2.9
Excise Duties ...	6.0	Debt Services ...	0.9
Stamps ...	1.3	Security Services ...	19.1
		Social Services ...	16.7
Total Incomes ...	56.3	Total Expenditure ...	56.3

(3) *Stamps.* State Governments obtain income by the sale of stamps as well. These stamps are not the postal stamps but those which are (i) placed on commercial documents and (ii) purchased as court fees. They yield in U. P., about Rs. 2 crores for a year which is Rs. 4% of total revenue.

(4) *Irrigation.* Canals are under the State Governments, which charge water rates from the cultivators in exchange for water taken by them from canals for irrigation purposes. In the U. P., the income from canals comes to about Rs. 2 crores p. a. which is 4 % of the total revenue.

(5) *Forests.* The States Governments gain much from the sale of timber and other forest produce, grazing fees and licence for permission to cut wood, etc. The revenue from forests is not large at present, but can increase considerably if huge initial expenditure is incurred, which is not possible in immediate future. In U. P. the annual income from forests is about Rs 1.75 crores p. a.

(6) *Registration.* Fees are charged for the registration of legal documents and for their copies. This is another unimportant source of revenue. It is an unimportant item in U. P. It yielded only Rs 24 lacs in 1948-49.

(7) *Income Tax.* Income Tax is collected by the Government of India but 50% of the proceeds is distributed among the States. At the present moment the distribution takes place in the proportions recommended by Sir Chintaman Deshmukh. But a Finance

Commission is re-considering the whole issue. In 1949-50, the U. P. Government obtained about Rs. 10 crores as its share of income tax, and it came to 17% of its total income.

(8) *Other Taxes.* There are some other taxes which can be imposed by a State Government if it so chooses. These are called *Scheduled Taxes*. During the World War II when the State Government felt financial stringency, they had to resort to scheduled taxes. The more important of them are discussed below.

(a) *Entertainment Tax.* It was levied in U. P. by the Congress Ministry when it first assumed the reins of government. The merits and demerits of the entertainment tax are as follows. Its merits are : (1) *It is equitable.* It is generally paid by the rich who have broad shoulders to bear its burden. (2) *It is easy to be collected, e. g.,* in the form of an extra charge on cinema tickets and passes. (3) It is a good tax for increasing the revenue of Governments in these days of financial hardship. Its demerits are : (a) It is not certain. (b) It is not very elastic. (c) It is not convenient. (d) When levied on the poor, it involves hardship.

(b) *Sales Tax.* A deficit in the 1948-49 budget led in U. P. to the introduction of this tax. It yielded in U. P. over Rs. 6 crores in 1949-50. Most of the states have this tax in force now. But the objects on which it is levied and its rates differ from state to state. Hence efforts are being made to have uniformity in this regard.

(c) *Income Tax on Agricultural Incomes.* Hitherto agricultural incomes were exempt from income tax. But now the U. P. Government propose to impose it. Some other states already impose it.

§ 4. CHIEF HEADS OF STATE EXPENDITURE

The importance of each head of expenditure varies from state to state. Here we make a rapid survey of the various heads of expenditure of states with special reference to Uttar Pradesh.

(1) *Security Services.* This is the most important head of expenditure in U. P. In 1949-50, a sum of Rs 19 crores was spent on this head, which came to 34 % of total expenditure. This item includes general administration, administration of justice, jails and convict settlements, police, etc. In 1938-39, only Rs 4 crores were spent on this head, and it amounted to only 30% of total expenditure. Now it has gone up to 34%—an increase of 70%.

(2) *Social Services or Nation-Building Activities.* This is the second head of expenditure and includes education, medical, public health, agriculture, rural development, co-operation, industries,

scientific departments, etc. In 1949-50, a sum of Rs 17 crores was spent on this head, which amounted to 30% of total expenditure. During the British Period, the Government spent very little on this head, and spent a comparatively large amount on security services. General Administration claimed such a large amount that very little was left for nation-building activities. Economists then advised that the Government should try to be economical in administration and should spend more on nation-building activities. It is a matter of regret that even after the attainment of independence, this criticism has not lost its force. In 1938-39, the expenditure on security services was 20% and on social services 28% of total expenditure. In 1949-50 the respective figures were 34% and 30%. As such there is need of considerable change in this direction.

(3) *Direct Demand on Revenue.* This includes expenditure incurred in collecting taxes and obtaining other revenues like excise duties, registration fees, collection of land revenue, etc. This expenditure claimed about 40% of the total revenue in the U.P. in 1949-50, the absolute figure being Rs 5 crores. Considerable room for economy exists and should be practised.

(4) *Irrigation.* A major part of expenditure under this head goes in paying interest on borrowed money with which irrigation works have been constructed. A certain amount is also spent for constructional purposes. The amount spent on this head in 1949-50 in U. P. came to Rs 3 crores. Of this half the amount was paid as interest on debt taken for constructing canals, etc.

(5) *Public Works.* This includes the amount spent on construction and maintenance of public buildings and roads. U. P. Government spent over Rs 6 crores in 1949-50 on public works.

(6) *Debt Services.* Some amount is paid towards the interest for the loans incurred and towards the creation of reserve and avoidance of debts. In 1948-49, one crore of rupees was spent under this head in U. P.

TEST QUESTIONS

1. Discuss the principal sources of income of state governments of this country and comment on each of them.
2. Discuss the principal heads of expenditure of state governments in this country and comment on each of them.
3. Are the sources of revenue of the provincial governments elastic? What suggestions do you give for improving the financial position of state governments from this point of view?

FINANCE OF STATES IN INDIA
EXAMINATION QUESTIONS

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U. P., Inter. Arts

1. What are the chief sources of income and heads of expenditure of U. P. Government? To what extent is the income adequate to meet its growing expenditure? (1951, 1947)

2. State with comments the important sources of revenue enjoyed by the U. P. Government. Are they enough to meet the needs of that Government? (1943)

3. What are the chief sources of income and items of expenditure of the Government of U. P.? Arrange them in the order of their importance, and comment on each of them. (1941)

Rajputana, Inter. Arts

4. Argue for and against the retention of excise duties. (1949)

Punjab, Inter. Arts

5. Give three important sources of revenue and three important heads of expenditure of (a) Government of India; and (b) Government of Panjab. How is prohibition likely to affect the budget of these governments? (1949)

6. Write a note on the heads of revenue and expenditure of a Provincial Government in British India. (1942)

LOCAL FINANCE IN INDIA

It appears to me impossible to devise an equitable local income-tax for you cannot localize income—*Lord Goschen*.

A field of the administration of India profoundly affected by the Reforms of 1919 was that of Local Government. The principal Local Bodies are Municipal Boards in the urban areas and District Boards in the rural areas. Their sources of income and items of expenditure are different from those of the Central and State Governments.

§ 1. MUNICIPAL FINANCE

Before Partition, there were in India about 812 municipalities with over 21 million people resident within their limits. The following table shows their growth and financial position :—

Municipalities in India

Year	No. of Mpl. Boards	Income Rs. '000	Expenditure Rs. '000	Incidence per head
1933-34	794	36,70,12	36,18,22	₹ 10 5
1934-35	798	38,07,98	37,59,90	₹ 12 0
1935-36	812	41,20,52	41,21,26	₹ 14 9
1936-37	812	41,99,95	39,56,01	₹ 14 2
1939-40	812	44,31,00	42,32,00	8 2 8

Sources of Municipal Revenue

The income of all the municipal boards put together comes to about 40 crores of rupees. Two-thirds of this income is derived from rates and taxes and the remaining 1/3rd from municipal property, contribution out of state revenues and miscellaneous sources.

(1) *Taxes on Trade*. Municipal Boards levy several taxes on trade, as for example, octroi duty, terminal taxes, tolls, etc. Of these *octroi duties* are the most important. They are levied on goods brought into the area of a municipal board from outside. They are very much favoured by the municipalities because their incidence is easily shifted and it is very difficult to determine on which class the

burden ultimately falls. Moreover, its collection through the agency of the railways has removed all the administrative difficulties inherent in the system of octroi. But they have aroused much opposition in the public. They offend against all the canons of taxation. Their incidence is uncertain. The collection and the refund system put the tax-payer to a great deal of inconvenience. When imposed on necessities for existence, as they generally are, they do not proportion the burden to the means of the payer. Finally, the expenses of collection and the facilities for fraud and evasion are disproportionately large. In view of these great shortcomings of the measure, it is being gradually substituted by terminal taxes and tolls. The former are collected by railway authorities on goods received by train; and the latter, on goods received by roads.

(2) *Taxes on Property.* Municipal Boards levy taxes on property as well, *e. g.*, taxes on houses and their sites. The Indian Taxation Inquiry Committee suggested that the town property which benefits largely from municipal activities should be subjected to increased assessment. In many cases no tax is levied on the site. It might be expected to bring appreciable income.

(3) *Taxes on Persons.* The examples of such taxes are (a) taxes on circumstances, (b) taxes on pilgrims, (c) terminal taxes on passengers and (d) taxes on menials and servants.

(4) *Fees and Licences.* Fees are levied for specific services rendered by the municipality, *e. g.*, scavenging fee. Sometimes they partake the nature of luxury taxes and sometimes they are levied for the purpose of regulation such as licences for music, vehicles and dogs. Licence fees are also charged for carrying on offensive and dangerous trades.

(5) *Rates.* Rates are the prices charged by the Municipal Board for some services rendered by it. Of these, the *water rate* is the most important. *Lighting rate* is another example.

(6) *Grant from the Government.* Besides the above taxes and rates, the scanty funds of municipalities are swelled by the Government grants which are annual as well as occasional.

(7) *Other Miscellaneous Incomes.* These include a wide variety of sources. The more important of them are cycle tax, wheel tax, receipt from cattle pounds, fine and penalties for breaking municipal laws, rent of municipal property, *e. g.*, municipal markets and slaughter houses, and sale of land, vegetables, etc.

Items of Municipal Expenditure

The functions of municipalities are divided under Public Safety, Health, Convenience and Instruction. The most important item of expenditure is the *water supply*, drainage and conservancy. *Public ins.*

truction comes next in importance and public works follow in order. The next item of expenditure is *general administration and collection of taxes*. Moreover, municipalities have to *borrow money* every now and then from the Government or from the general public, to carry out such large projects as water supply, drainage works, etc., and have to pay interest on loans. *Expenditure on public safety* like lighting, police, fire, etc., is also important. Money is also spent on *hospitals, dispensaries and vaccinations, on markets, gardens and sanitation*.

Income and Expenditure of Municipalities in India (In lakhs of rupees)

Sources of Income	1939-40	Heads of Expenditure	1939-40
Municipal Rates and Taxes :—		General Administration and collection charges ...	1,79
Octroi ...			
Taxes on houses and lands ...	1,64	Public Safety :—	
Tax on animals and vehicles ...	5,37	Lighting ...	1,29
Tax on professions and trades ...	46	Police ...	1
Tolls on roads and ferries ...	34	Fire etc. ...	17
Water rates ...	31		
Lighting rate ...	2,35	Total ...	1,47
Conservancy rates ...	30		
Other taxes ...	1,04	Public Health and Convenience	
	1,81	Water supply, drainage and conservancy ...	5,35
Total rates and taxes ...	13,62	Hospitals and dispensaries and vaccination ...	1,08
Realizations under special Acts		Plague charges, markets, gardens and sanitary ...	86
Grants from Government ...	19	Public works ...	2,56
Rent of lands, houses, etc. ...	1,10	Public instruction ...	2,47
Fees ...	51	Contributions for general purposes ...	50
Receipts from markets and slaughter houses ...	65	Miscellaneous :—	
Other sources and Miscellaneous. ...	67	Interest on loans ...	1,43
	1,67	Other miscellaneous expenditure ...	1,64
Total Income		Total Expenditure ...	15,89
	18,41		
Extraordinary Head : Debt ...	25,30	Extraordinary Head : Debt ...	24,96
Grand Total ...	44,31	Grand Total ...	42,32
Incidence per head			
(i) Rates and taxes ...	Rs. a. p.		
(ii) Total income excluding Extraordinary Head : Debt	5 14 2		
	8 2 8		

1. These figures represent the aggregate revenue and expenditure of 812 Municipalities in 1939-40. See *Statistical Abstract for British India* (1935-36), Tables Nos. 35,36.

§ 2. FINANCES OF DISTRICT BOARDS

The duties and functions assigned to municipalities in urban areas, are assigned to district and local boards in rural areas. In almost every district of India, there is a board subordinate to which are two, or more, sub-district boards; while in Bengal, Madras, Behar and Orissa, there are also union committees. The following table shows their financial position:—

Revenue and Expenditure of District and Local Boards in India

Income (excluding balance)	1939-40	Expenditure		1939-40
State rates	4,93	Education	...	6,53
Civil Works	2,24	Civil Works	...	3,96
Other sources	9,53	Sanitation, Hospital etc.	...	2,21
Total	16,70	Debt and Miscellaneous	...	4,23
	Rs. a. p.	Total	...	16,93
Incidence per head	1 13 3			

Sources of Board's Revenue

The most important item of revenue is state (provincial) rates or sur-charges on land, which represent a proportion of the total income varying from 25 per cent in Bombay to 63 per cent in Behar and Orissa. The land cesses are collected along with the land revenue. They are levied at a flat rate and, therefore, inflict greater injury on the poor as compared to the rich. But still they are not opposed very much since the proceeds are applied for the benefit by the activities of local boards. Civil works are another source of income. The following is an exhaustive list of the sources of revenue: (1) Government grants from State fund; (2) local rates or cesses levied on agricultural land over and above land revenue; (3) taxes on circumstances and property; (4) cattle pound receipts; (5) toll or ferries and bridges; (6) receipts from education; (7) Medical receipts; (8) receipts from markets, shops, fairs and exhibitions; (9) income from property; and (10) receipts from agricultural seeds and implements depots.

Items of Board's Expenditure

The most important item of expenditure is education which has come remarkably to the front within the last three years. Civil works like roads and bridges are the next important objects of expenditure. Medical relief shares with education, though in a less degree, the lion's shares of the available revenue. The main heads of expenditure are: (1) general administration, *i.e.*, cost of collecting taxes; (2) construction, maintenance and repair of buildings, cattle ponds, etc.; (3) expenditure on schools and education; (4) hospitals and public health; (5) veterinary; (6) holdings of fairs, agriculture shows and industrial exhibitions; (7) agricultural and aboriculture; (8) public works; and (9) prevention and reclamation of soil, drainage and swarms.

TEST QUESTIONS

1. What are the sources of revenue and heads of expenditure of municipal boards. Discuss fully.
2. Enumerate and explain the sources of income and heads of expenditure of the district boards in India.

EXAMINATION QUESTIONS

U. P., Inter. Arts

1. Explain the chief items of income and expenditure of District Boards, in U. P. (1952)
2. Write a short note on "The Income and Expenditure of Municipalities in U. P.," (1951)
3. What are the main sources of income of a municipality? (1949)
4. State and comment on the sources of income of either the Government of India or your District Board. What was the effect of the World War II on their income? (1944)

Rajputana, Inter. Arts.

5. Suggest measures for increasing the income of our municipalities. (1948)
- Delhi, Inter.
6. If you were made the President of the Delhi Municipality, how would you plan the expenditure of the municipality, and what sources would you raise the income? (1949)
7. Write a note on "Expenditure of Delhi Municipality" (1949)

